Department of Pesticide Regulation

Mary-Ann Warmerdam
Director

Arnold Schwarzenegger
Governor

January 21, 2005

Dear Integrated Pest Management Coordinator:

Below you will find information about resources the California Department of Pesticide Regulation (DPR) provides to help your school district start an integrated pest management (IPM) program, manage pests using IPM, and train your staff in IPM methods. This information includes some Web sites we recommend you bookmark to assist you with your IPM program.

DPR's California school IPM program Web site
This Web site provides a "Frequently Asked Questions" section about the Healthy Schools Act, pesticide use notification templates, a list of pesticide active ingredients, resources that describe and promote least-hazardous practices, links to information about public health and environmental impacts of pesticides, ways to reduce the use of pesticides at schools, and more. <http://www.schoolipm.info>

Model IPM program guidebook
Whether you are just starting to implement an IPM program or want to improve an existing program, this guidebook will serve as a useful resource to answer your IPM questions and to provide practical, hands-on steps that can be implemented as part of your IPM program. The first part of this book lays out the essential elements of a least-hazardous IPM program and the steps to adopting an IPM program. Specific strategies for pest management indoors and outdoors are covered in the second part of the guidebook arranged by individual pests. <http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/managing_pests/guidebook.cfm?crumbs_list=1,5,37>

IPM curricula to train staff
We designed these curricula for districts that need resources to train their own staff. Each curriculum describes how to present a training workshop, and includes lists of tools and books you need as well as background information. Currently, we have curricula for burrowing rodents, yellowjackets, turf weeds, and landscape weeds. <http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/training/main.cfm?crumbs_list=1,39#curricula>

IPM training
DPR conducts IPM training workshops for school districts throughout the state every year. The workshop uses a hands-on, "walk-through" demonstration format, and focuses on the major pests of school buildings and landscapes. Locations, dates, and other information about the school IPM training workshops are announced at the Web site shown below. <http://www.schoolipm.info/training/main.cfm?crumbs_list=1,39>

We have also enclosed a U.S. Environmental Protection Agency brochure that provides information about IPM and other resources that are available.

If you would like more information about California's program and its activities, please call me or e-mail me at <mbrattesani@cdpr.ca.gov>.

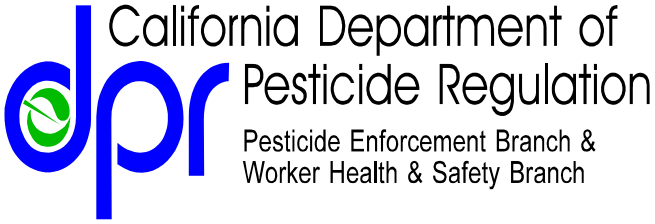
Sincerely,

Original signed by

Madeline Brattesani, Ph.D.
Senior Environmental Research Scientist
Pest Management and Licensing Branch
(916) 324-4082

Enclosure

cc: DPR School IPM Advisory Group (w/Enclosure)



Pesticide Use Enforcement Program Standards Compendium

Volume V. INVESTIGATION PROCEDURES

(DRAFT)

(REV. January 21, 2005)

STATUS OF THE
DEPARTMENT OF PESTICIDE REGULATION
PESTICIDE USE ENFORCEMENT PROGRAM STANDARDS COMPENDIUM

Regulating pesticides in California is a joint responsibility of the Director of the Department of Pesticide Regulation (DPR) and county agricultural commissioners (CACs). Section 2281 of the Food and Agricultural Code (FAC) provides that DPR is responsible for overall statewide enforcement and for issuing instructions and making recommendations to the CACs. The CACs are responsible for local administration of the pesticide use enforcement program. Several other sections of the FAC (11501.5, 12977, 12982, 14004.5, and 15201) state that the CACs work under the direction and supervision of the Director.

The Pesticide Use Enforcement Program Standards Compendium is being issued by DPR to fulfill, in part, its statutory responsibility to assist in planning and developing county programs in areas including uniformity, training, and coordination and to provide directions for implementing the pesticide use enforcement program.

The anticipated seven volumes of the Compendium (General Administration, Laws and Regulations, Restricted Materials and Permit Management, Inspection Procedures, Investigation Procedures, Enforcement Action Guidelines, and Hearings Sourcebook) will contain the standards and expectations DPR has for the pesticide use enforcement program implemented by the CACs. It is the reference against which county programs are evaluated. Continued poor performance by a county can impact the mil assessment distribution money it receives. The contents of this volume supercede any position or direction on these subjects contained in previous letters to CACs or earlier manuals.

Any direction, procedure, policy, or interpretation related to the pesticide use enforcement program not included in the complete compendium should be assumed to have been intentionally omitted and considered to no longer have any force or effect. Omitted items not in conflict with directions or positions contained in the compendium may, however, continue to be used for interim guidance. DPR reserves the right to re-examine omitted topics and may readopt them or develop a new position or directions if and when determined to be necessary. New and updated procedures, policies, and interpretations will be issued in the form of updates to the Compendium. Suggestions for changes, additions, or deletions to the Compendium should be made to DPR.

PESTICIDE EPISODE INVESTIGATION PROCEDURES

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I. GENERAL INFORMATION

A. Legal Authority

Federal Authority. Title 7 United States Code section 136 et seq., established the United States Environmental Protection Agency (US EPA) as responsible for administering and enforcing the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Section 26 of FIFRA specifies that for the purposes of this Act, a state shall have primary enforcement responsibility for pesticide use violations.

State Authority. Sections 11501.5, 12977, 12982, 14004, and 15201 of the California Food and Agricultural Code (FAC) specifies that the County Agricultural Commissioners (CAC) enforce the pesticide use enforcement program under the direction and supervision of the California Department of Pesticide Regulation (DPR). Section 2281 FAC outlines the responsibilities of each party in joint programs. Section 11454 specifies that DPR is the successor to CDFA in enforcing pesticide laws and regulations. Title 3, California Code of Regulations (CCR) section 6140 specifies that DPR or the CAC may at any reasonable time enter and inspect and/or sample items in order to determine compliance.

FAC website:
http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fac&codebody=&hits=20

Title 3 CCR website: http://www.cdpr.ca.gov/docs/inhouse/calcode/chapter_.htm

B. Responsibility

DPR and CAC have responsibility and authority to investigate episodes that may involve potential or actual human illness or injury, property damage, loss or contamination, and fish or wildlife kills alleged to be the result of the use or presence of a pesticide (*FAC sections 408, 11501.5, 12977 and 12982* and the US EPA/DPR/County Agricultural Commissioners and Sealers Association (CACASA) Cooperative Agreement)[1/]. The local CAC usually conducts these investigations. Contact the Enforcement Branch (EB) regional office for assistance in determining the appropriate investigative agency when there are: (1) Episodes involving more than one county; or (2) Conflict of interest issues such as illness of CAC staff and complaint of county operations.

DPR relies upon the CAC to provide sound, factual information in the investigative report. Upon request, DPR staff will provide guidance to the CAC during an investigation. The DPR may also choose to be actively involved in an investigation to more closely evaluate the human health aspects of some incidents. Complete, well-documented episode investigations form the basis for taking proper enforcement actions. Investigative reports are used to evaluate pesticide use patterns and are often the major avenue toward identifying broader statewide or national issues. Additionally, the DPR reviews the quality of episode investigations to evaluate the effectiveness of the compliance monitoring aspect of a CACs core enforcement program.

[1] The cooperative agreements that impact episode handling are compiled by the DPR Office of Policy Coordination and Continuous Improvement.

In addition to use by the CAC and DPR, these investigative reports receive close review and scrutiny from the Legislature, US EPA, other government agencies, and special interest groups reflecting vastly different points of view.

C. Episode Notification

DPR and the CAC may receive episode notification by any of the following routes: Pesticide Illness Report (PIR); Doctor's First Report of Occupational Injury or Illness (DFROII); Citizen or Employee Complaint of Human Exposure or Unsafe Condition, either oral or written (form PR-ENF-074); other government agency referrals; notification from pest control businesses (PCB), growers, or labor contractors; Report of Loss, Nonperformance or Damage (form PR-ENF-008); or a news media account.

Health and Safety Code section 105200 (see website: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=105001-106000&file=105200-105225) requires the physician to report pesticide illnesses to the local health officer within 24 hours. The local health officer must immediately notify the CAC of each reported illness. The CAC should establish contact with the local health department to ensure prompt receipt of these reports.

The DPR routinely forwards episode reports to the CAC for investigation, unless the episode lies outside DPR/CAC jurisdiction or pertains to a situation where the FAC places primary responsibility on the Director (pesticide registration, labeling, and produce with pesticide residue). Any person alleging property loss, nonperformance or other damage as a result of a pesticide application should file a report of the damage or loss (form PR-ENF-008) with the CAC within 30 days of the occurrence or discovery of the loss (*FAC sections 11761 - 11764*).

D. Jurisdiction

1. Human Effects Episodes

DPR categorizes pesticide-related human effects exposures into two major groups, use-related and not use-related. The use pattern (such as structural, institutional, industrial, home, or agricultural), or the kind of pesticide (fungicide, antimicrobial, insecticide, or herbicide) does not affect jurisdiction or investigative responsibility (see page 3, paragraph 4 for exceptions). Figure 1 will assist the investigator in determining jurisdiction and investigative responsibility.

Use-related (*Title 3 CCR section 6000*) exposures result from pre-application, application and post-application activities. Examples of such activities are mixing, loading and applying pesticides (including antimicrobials), operating fork-lifts and other equipment to move fumigated commodities, workers exposed to pesticide residue in fields and offices, exposure to pesticide drift, cleaning spray equipment, etc. **The determining factor is that a pesticide use resulted in a direct or indirect exposure.**

Non use-related pesticide exposures result from pesticide activities incidental to other tasks. Examples include pesticide manufacturing, formulating and packaging, commercial transportation and storage, emergency response situations such as fires and spills, disposal sites, etc. These exposures come under the jurisdiction of the Department of Industrial Relations (DIR) as agreed upon in the DIR/DPR/CACASA "Memorandum of Understanding (MOU) For Employee Protection at the Pesticide Workplace." Although outside DPR/CAC jurisdiction, our involvement may be requested due to our general knowledge about pesticide hazards and overall lead agency responsibility for pesticide regulation.

The DIR/DPR/CACASA MOU provides DIR jurisdiction for certain use situations. These are: 1) Ethylene oxide uses; 2) Inorganic arsenic used as a wood treatment; and 3) Ethylene glycol monomethyl ether uses.

CAC/DPR maintain jurisdiction and investigative responsibility for all use-related non-occupational pesticide-related exposures. These include exposure to homeowners, bystanders, school children, etc.

For occupational pesticide exposures, the affected person's work activity at the time of exposure determines the CAC/DPR role in the investigation. In general, the following worker activities fall under the jurisdiction of the CAC/DPR (see Figure 1):

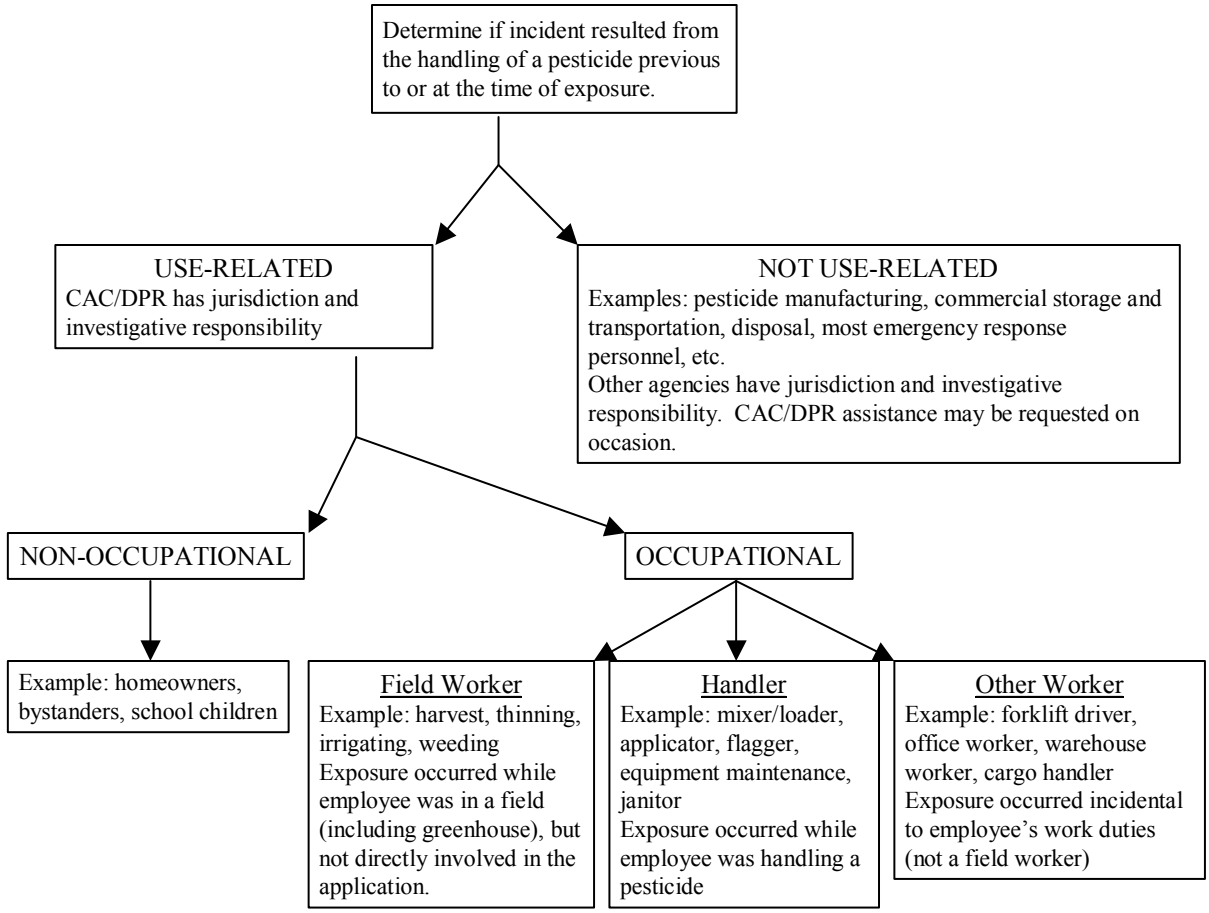
a. Handler - Exposure occurred while an employee performed work considered to involve the handling of a pesticide (see *Title 3 CCR section 6000* definition for "Handle") for either agricultural or nonagricultural purposes. Work activities include mixing, loading, flagging, applying, servicing, maintaining or cleaning contaminated equipment, incorporating pesticides into the soil, handling unrinsed containers, removing tarps, and performing the duties of a crop advisor during an application or restricted entry interval (REI).

b. Field Worker - Exposure occurred while the employee worked in a field (including greenhouses) and was not directly involved in the handling of a pesticide. Work activities include picking, thinning, pruning, irrigating, weeding, etc. The exposure can be either to pesticide residue or drift from a pesticide application.

c. Other Worker (Incidental Exposure) - Exposure occurred incidental to the employee's job, but resulted from someone handling a pesticide previous to, or at the time of, exposure. These work activities include office workers exposed to pesticide residue and drift from a pesticide application.

DPR's Worker Health and Safety Branch (WH&S) forwards reports of illness or injury that appear to be pesticide use-related to the CAC for investigation of the circumstances of exposure. This excludes reports involving pesticides that are specifically addressed by the DIR/DPR/CACASA MOU (e.g., inorganic arsenic wood treatments, ethylene oxide and ethylene glycol monomethyl ether). **For an episode not within DPR/CAC jurisdiction, the CAC must still file a Pesticide Episode Investigation Report (PEIR) with DPR. The PEIR must include adequate information to show that the episode lies outside DPR/CAC jurisdiction.** The CAC should refer these episodes to the proper agency.

Figure 1: DPR/CAC Pesticide Exposure Investigation and Jurisdiction



2. Non-Human Effects Episodes

Illegal Residues: The DPR and the CAC hold joint responsibility for investigating pesticide residues on produce. The DPR focuses on the produce in the channels of trade while the CAC focuses on how the illegal residue occurred.

Property Damage or Loss: The CAC is responsible for investigating property damage or loss resulting from the use of a pesticide. If the loss or damage is determined to be the result of contaminated or mislabeled pesticides or pesticides that contain concentrations of an active ingredient(s) that is not accurately represented by the labeling, the investigation will be conducted by the DPR.

Fish and Wildlife Episodes: The DPR, CACASA, and the Department of Fish and Game (DFG) through a MOU have responsibilities relating to the protection of fish and wildlife resources from the potentially adverse effects of pesticides.

Emergency Hazardous Materials (Pesticides) Incidents: These incidents often involve a multi-agency response. The CAC should contact the lead agency within the county for direction. Although the CAC may not have any jurisdiction, the county emergency response plan may include the CAC to assist other agencies in a coordinated response.

3. Federal Facilities

Executive Order 12088 requires Federal employees performing pest control on federal facilities to comply with federal, state, and local pollution control standards established pursuant to FIFRA. Federal employees must demonstrate applicator certification prior to the purchase and use of restricted use pesticides. Certification may be by the federal agency pursuant to a U. S. EPA approved program. Federal agencies must also comply with requirements on the registered pesticide label.

DPR and CACs cannot assess penalties against federal agencies or their employees for violations of state or federal law on federal facilities. Executive Order 12088 provides that U.S. EPA is responsible for dispute resolution between a federal facility and a federal, state, or local regulatory agency. The CAC should inform DPR when they find that a federal agency violated a pollution control standard (pesticide law or regulation) and fails to cooperate in the investigation or correct the problem. DPR will work with the CAC and the federal agency to resolve the problem or will forward the information to U.S. EPA for resolution.

State laws and regulations (including licensing) apply to persons who are NOT federal employees and who are hired by or under contract to a federal agency to perform pest control on a federal facility and private persons who lease or contract for the use of federal land or facilities for private activities. DPR and CACs can take action for violations of state laws against these private persons. See Appendix G for a more in depth discussion of authority on federal facilities.

4. Tribal Lands

States have no jurisdiction to enforce their laws on Native American Tribal lands unless specifically authorized by Congress to do so. Therefore, DPR and CACs cannot conduct investigations or impose penalties against persons for violations of the State's pesticide laws or regulations on Tribal lands unless there is a specific agreement with the Tribe in place.

E. Investigative Plan

Start Promptly

Initiate investigations promptly upon notification of an episode. Do not wait for a physician's report or written complaint. The physician may not file a report even though Health and Safety Code section 105200 requires it. Prompt initiation reduces the amount of investigative time needed to locate and interview people directly or indirectly involved in the episode, especially when the episode involves migratory/seasonal workers. Early witness contact improves the factual information obtained for the investigative report.

Formulate Plan

Before starting the investigation, the investigator should formulate a general investigative plan based on the initial information provided in documents such as the PIR, DFROII, and Pesticide Episode Notification Record, or the complaint referral. **The investigative plan should focus on the circumstances of the episode and any suspected violations as well as the kinds of evidence needed to prove the violations.** In developing the plan, the investigator must consider such things as type of episode, priority status, elapsed time since occurrence, collection of evidence, and resources needed.

The investigative plan should briefly:

1. List the suspected violations by element.
2. List persons who need to be interviewed (by role, e.g. applicator, supervisor, injured person, bystander, etc.).
3. List type of samples (sampling plan) to facilitate the collection of commodity, foliage and other types of samples.
4. List other evidence necessary to prove particular elements of violations (e.g.; Restricted Materials Permit, Notice(s) of Intent (NOI), and Pesticide Use Report(s), training records, diagrams, photographs, etc.).
5. List probable inspection activities (e.g., headquarters inspection).
6. Summarize the findings of fact to date, and planned activities.
7. List of persons who need to be provided with periodic updates.
8. Address agreements with other agencies and legal mandates.

Amend the Plan

As the investigation proceeds, amend the plan as you gather new evidence. An up-to-date plan usually has all information necessary to provide priority episode investigation preliminary findings to the regional offices within 15 days of notification.

To determine current safety conditions, consider performing appropriate inspections in conjunction with the investigation.

F. Timely Submission of Episode Investigation Reports

For non-priority illness investigations, the DPR requires the CAC to submit the completed PEIR to WH&S within 120 calendar days of WH&S assigning a case number. For priority investigations, the US EPA/DPR/CACASA Cooperative Agreement allows the CAC to establish the completion date. DPR recognizes that a small number of episodes cannot be completed within the established time frames due to circumstances beyond the control of the investigator. For these episodes, the CAC must notify the Enforcement Branch Liaison (EBL) on form PR-ENF-097 explaining why the non-priority episode investigation cannot be completed within 120 days or the priority episode investigation cannot be completed by the CAC established date. The CAC must also specify the additional length of time needed to complete the investigation. The EBL must approve the extension. Criteria for obtaining an extension include:

1. The injured person is unavailable for an extended period, but is expected to be available for an interview at a later date. Specify the approximate date on the form.
2. Samples have been sent to an analytical laboratory that is unable to return the results for an extended period of time.
3. There is a delay in obtaining medical records or coroner reports.

Do not delay the submission of the investigative report because of pending enforcement action. Submit a Pesticide Enforcement Compliance Action Summary (PR-ENF-046) with the Pesticide Regulatory Activities monthly reports to the Enforcement Branch after completing the action. Be sure to include the DPR priority investigation number (if applicable) and the WH&S case number on the form.

WH&S receives medical reports (PIRs and DFROIIs), enters them into a computer database within two working days, and sends them to the appropriate CAC. Upon receipt of the completed PEIR from the CAC, WH&S records the received date in the database. WH&S sends a monthly printout of episodes logged to each county. The printout includes all assigned cases for the year, including cases with completed investigative reports. DPR uses these dates to determine the length of time the CAC took to complete the episode investigation. The EBL will use this information when preparing the CAC's evaluation.

Prior to forwarding an episode to another CAC for investigation, please notify WH&S. The database record will be updated to reflect the change in the investigating CAC.

DPR reviews the investigative reports for completeness and appropriate enforcement action. DPR will request the CAC provide additional information for any report submitted with inadequate information. The time clock stops upon receipt of the investigative report by DPR. The time clock starts again when the DPR returns the investigative report to the CAC for additional information.

II. INVESTIGATION OBJECTIVES AND PROCEDURES

A. General Procedures

1. Human Effects Episodes (General)

a. Objectives

During the investigation of human effects episodes, **t**he primary objective is to **document the exposure and determine the circumstances (including any violations) contributing to the exposure event** in order to evaluate the effectiveness of the label directions, laws, regulations, policies and practices.

b. Assistance

WH&S can provide technical assistance to the CACs on pesticide-related human effects episodes. WH&S staff is available to answer questions dealing with WH&S issues related to the investigation. Although limited, additional assistance is available for collecting dislodgeable residue samples, coordinating the collection of clothing, urine and blood samples, assisting CAC investigators in interviewing persons exposed to pesticides, and physician consultation services. Contact WH&S directly when requesting assistance. Since these services are limited, WH&S staff evaluates each request and will determine the level of assistance available.

WH&S contracts with the University of California Davis for physician consultation services. Dr. Michael O'Malley provides these services one day a week in the office and is on-call during the rest of the week during business hours to assist CACs and healthcare providers. To obtain assistance from Dr. O'Malley, contact the WH&S Pesticide Illness Surveillance Program staff. Staff screen the requests to determine whether it requires immediate attention, or further research. Staff will contact Dr. O'Malley to provide the assistance.

c. Specific Information to Collect

Specific activity. Identify the exposed person's <u>specific</u> activity (e.g. harvesting grapes, mixing for an aerial application) at the time of exposure. Also, include information on the length of time the employee spent at this activity. Avoid using "laborer", "farm worker" and other general terms because they do not provide activity-specific information.

Toxic agent. Specify the chemical product(s) involved. Was the chemical a pesticide or used as a pesticide? Record the full product name (example: Roundup Pro Herbicide instead of Roundup) and EPA registration number (including the alpha code). Describe how the chemical was used. Was the chemical properly used (i.e. according to label directions)? Is it a restricted material? Was anything different in the pattern of usage (i.e., first time use on a particular crop, different timing or method than in the past)? <u>Accurately</u> record all information.

Labeling. Include a copy of the pertinent pages of the labeling and section 18 directions with the investigation. Exclude pages that have no bearing on the episode (i.e. use directions for crops/sites other than the one(s) related to the episode. Whenever possible, obtain labeling from the product at the episode site or identify the source of the labeling. Take close-up photographs of the labeling when it cannot easily be removed from the container. Request a copy of the registered label from DPR's Pesticide Registration Branch. Do not include a copy of the Material Safety Data Sheet (MSDS) with the investigation, unless the MSDS is presented as evidence of the product used.

Exposure. Describe the exposure event in detail. Was there anything unusual about the individual's activity? Was the individual recently hired or recently assigned to pesticide use activities? Was there any potential exposure from prior activities? For employees, was there any potential exposure from non-work activities? If no specific exposure event can be identified, include a detailed history of activities and possible exposure situations for at least 3 days prior to the illness. Incidents where the exposure event cannot be determined may suggest that additional mitigation measures are needed to reduce overall exposure. In certain situations, use photographs to supplement the exposure event description such as photographs showing drift spots on a vehicle. (NOTE: The determination of the exposure/illness relationship relies on specific and detailed information of the exposure situation and symptoms experienced. Specific and detailed information increases the accuracy of the exposure/illness relationship.)

Pesticide Application History. For incidents involving potential exposure to pesticide residue, provide a pesticide application history (at least 30 days) prior to the date of exposure for all fields worked in. If no pesticide applications occurred in the previous 30 days, provide the information for the last pesticide application made to the field(s).

Cultural practices. Note any crop cultural practices that may contribute to the exposure (e.g. type of trellising, irrigation methods, clean vs. weedy fields, etc.).

Training.
Handlers: Was the employee involved in the episode properly trained? Does the employer's and employee's description of the training program coincide? Evaluate the quality of the training, as well as the training records. Include a copy of training records only for employees involved in the episode.

Field Workers: If field workers are involved, did an REI expire within the previous 30 days? If so, have the workers been trained? Do they have EPA Worker Protection Standard Training Worker Verification cards (blue cards)? Can the workers explain the type of training they received? Ask the employer how the field workers are trained.

Supervision. How closely was the employee(s) supervised? Was the supervisor aware of the conditions at the use site (*Title 3 CCR section 6702*)? Did the supervisor provide the required safety equipment? Was the supervisor certified (generally limited to restricted materials)? Was there a plan to contact a supervisor (or his backup)?

Symptoms. Do not assume the information given in the PIR/DFROII is accurate. Ask the affected person what symptoms he/she experienced. How much time elapsed

between exposure and the onset of symptoms? When more than one person is involved in an episode, record each individual's symptoms separately. Each person may react differently to similar exposures.

Medical care. Was medical supervision required? If so, were the regulatory requirements and physician's recommendations followed? If not, document what tests were required, but not performed or the recommendations not followed. Is the name, address and telephone number for emergency medical care posted? Did the employer or supervisor have the employee taken to a medical care facility? Did the employee refuse to be taken for medical care (*Title 3 CCR section 6726*)? How much time elapsed between onset of symptoms and medical treatment? Were medical tests completed? If so, what were the results? Take a Medical Information Authorization form (PR-ENF-133 (English) or PR-ENF-133x (Spanish)) for release of medical records and get it signed at the time of the interview. For priority episodes, get the medical records. Medical records, especially relevant test results, often play a critical role in evaluating the illness. If the medical records are deemed necessary and the investigator cannot obtain them, contact WH&S for assistance. If the investigator cannot obtain the records after making a reasonable effort, state the reason in the investigative report.

For episodes involving cholinesterase-inhibiting pesticides where the physician requested cholinesterase testing, try to obtain a copy of the laboratory test results, including the laboratory normal range for each test. Obtain any baseline cholinesterase levels and any test taken prior to the exposure. For cases involving lowered cholinesterase levels, was the employer required to investigate the employee's work practices (*Title 3 CCR section 6728(d)*)? If the employer conducted a work practices investigation, include a copy of the report with your investigation.

Application method and application equipment. Describe how the pesticide(s) was applied. What type of equipment (be specific) was used? Note items such as air or ground equipment, boom placement on the spray rig, type and effectiveness of closed system used, type of cab on the tractor, air conditioning or filtering system in use on enclosed cabs, type of hand-held application device, use of electrostatic spray equipment, etc. Is the equipment well maintained and has it been calibrated? What is the size of the nozzle orifice? Evaluation of drift and residue (field and structural) episodes especially benefit from this type of information.

Protective measures. List the protective measures (engineering controls or personal protective equipment (PPE)) provided and in use at the time of the episode. What engineering controls and PPE do the product labeling and regulation require? To effectively evaluate the episode and its effect on the regulatory program, WH&S needs to know the specific protective measures used (including leather vs. cotton gloves, long vs. short sleeves, chemical-resistant vs. cloth coveralls vs. normal clothes, goggles vs. sunglasses). For half face respirators, specify whether it is an organic vapor or particulate respirator (such as ones designated as N95). Statements such as "All required protective clothing was worn" are not useful, unless combined with specific items worn. When possible, note the manufacturer and model of any engineering controls. Is the protective equipment in good repair (clean respirator filters, torn coveralls, holes in the gloves, etc.)?

Decontamination. Were sufficient water (including for emergency eye flushing), soap, single use towels and clean change of coveralls available at the work site as specified in Title 3 CCR sections 6734 and 6768? Are clean coveralls provided daily (if required)? Does personal hygiene appear to be a factor in the incident?

Others involved. Were other individuals exposed? Did they have symptoms? Often, this cannot be determined accurately without interviewing these individuals. Include an interview summary for each individual interviewed. Do not state that the affected individual was the only one in the crew to become sick/injured unless the entire crew is interviewed. Lack of a doctor's report (PIR or DFROII) does not mean that no other individuals suffered symptoms.

Notification. Describe the method the operator of the property used to give advanced notice of a planned application to appropriate people who may walk within ¼ mile of the field to be treated (*Title 3 CCR section 6618*). Was the method adequate? Did the notice include all required information? Did a lack of adequate notice appear to have a role in the incident?

Hazard Communication/Application Specific Information. Did the employer (property operator or farm labor contractor) display a copy of an appropriate and filled out Pesticide Safety Information Series (PSIS) (A-8, N-8, A-9) (*Title 3 CCR sections 6723 and 6761*)? Did the property operator maintain pesticide use records, other applicable PSIS leaflets, and MSDSs for pesticides used? Did the employer keep employees informed as to where these records are kept and grant access to other required records? Describe the method the production agriculture property operator uses to display application-specific information (*Title 3 CCR sections 6723.1 and 6761.1*). Did it contain all required information? Was it timely?

Generally these requirements would not be a causal factor in an illness incident, however, if it appears that either the failure to display or provide access to such information played a role in the incident, explain how in the investigative report. Regardless of the role this information played in the incident, these requirements should be evaluated during the investigation to determine whether such violations occurred.

d. Worker's Compensation

Worker's Compensation requires medical treatment for all workers made ill at the workplace. Workers are entitled to Worker's Compensation disability income if they become unable to work due to the effects of the pesticide exposure in the workplace. If a worker asks about worker's compensation, advise the worker to contact the Information and Assistance Officer of the closest district office of the DIR, Division of Workers' Compensation for questions about the rights of the employee and worker's compensation coverage/benefits (For addresses and telephone numbers, see Appendix B or website http://www.dir.ca.gov/dwc/IandA.html).

2. Human Effects Episodes (Specific)

a. Field Worker Cluster Episodes

When investigating any illness/injury involving a member of an agricultural field crew, never assume the worker is the only crewmember affected. DPR may not have additional reports of illness or injury for several reasons: (1) the doctor's reports may not have made it through the system; (2) the doctor may not report the episode (even though required); or (3) the other crew members may not have sought medical care. If more than one illness/injury occurs at one location within a short period of time, be alert to the possibility of a cluster illness/injury situation. Early identification of this situation may actually prevent a serious cluster episode.

A field worker cluster episode may be the most volatile situation for an investigator. At least five issues must be considered: (1) Is there a continuing human health hazard? (2) What is the health status of the affected crew? (3) Is there a possibility of illegal residues on produce? (4) What exposure conditions led to the illness? (5) Were any violations identified?

The health of the exposed individuals must be the primary concern. The CAC should involve DPR (WH&S and EB) and the County Health Officer early in the episode. A conference call involving EB, WH&S and possibly the health officer can help the county form a solid investigation plan. The Health Officer has authority (*Health and Safety Code, section 105200*) to become involved in this type of situation. The Health Officer has the expertise to provide valuable assistance in determining the presence of an ongoing health hazard and in communicating with physicians. Check with your county Health Officer for existing county policies.

When there is the possibility of an ongoing health hazard due to pesticides, the CAC can take the necessary steps to protect the workers. Pursuant to Title 3 CCR section 6706, the CAC can issue an order to: (1) prohibit all entry by employees into the area; (2) require the employer to obtain medical supervision and an evaluation of workers by the medical supervisor; and/or (3) specify exposure time limits or PPE to be worn by employees entering the area. The medical supervisor would monitor the health status of the workers. The medical supervisor's worker health recommendations must be followed. Inform the DPR WH&S of the identity of the medical supervisor.

Conduct individual interviews with each worker soon after the incident. Conduct the interviews privately, without the employer or an employer representative present. DPR recommends the CAC develop a short questionnaire to use during the interviews. Each questionnaire should take no more than 5 to 10 minutes to administer. Concentrate the questions on worker specific information (e.g. medical symptoms, including prior history of dermatitis, asthma and allergies if pertinent, work location and specific activity at time of exposure, personal hygiene, and living conditions).

The investigator must collect complete work histories to determine where the crew previously worked. Obtain a two-week work history prior to the episode. Work histories include time worked, activity, location of fields worked, crop, variety, crew assignments,

etc. Collect pesticide application histories (at least 30 days) for all fields noted in the work histories.

People with appropriate expertise (toxicologists, physicians) evaluate these episodes (hazards of residue present, medical tests, etc.). Involve them early in the investigation. Contact WH&S for assistance in this area.

b. Public Exposure Episodes Involving Large Numbers of People

DPR and CACs are responsible for investigating any episode involving people exposed to pesticides while they are not working, including ones involving large numbers of exposed people. These episodes often involve the off-site movement of pesticides (or their breakdown products) into non-agricultural areas. The affected people may not seek medical attention and thus PIRs are not filed.

For public exposure episodes possibly caused by the use of a pesticide on an agricultural commodity and where the resulting illness or injury resulted in medical attention, special procedures apply to the investigation. FAC section 12997.7 outlines these special procedures.

For these public exposure episodes, the DPR developed a set of tools to provide guidance to the CAC in responding to these episodes. These guidelines can be found in Appendix F. The guidelines include two forms designed to assist the investigator in quickly collecting information on all exposed individuals within a household at the same time. These are: 1) Pesticide Exposure Incident Questionnaire; and 2) Pesticide Episode Investigation Non-Occupational Exposure Supplement (PR-ENF-128).

The Pesticide Exposure Incident Questionnaire is designed for the CAC to distribute to individuals within the affected area to provide them with the essential information concerning the episode and to give affected individuals the opportunity to self-report their exposure situation and associated symptoms. The Pesticide Episode Investigation Non-Occupational Exposure Supplement (PR-ENF-128) is designed to assist the CAC staff in collecting information during interviews. Both forms allow the collection of information for all members of an affected household (up to 15 people).

c. Episodes Involving Antimicrobial Pesticides

Conduct an investigation to determine the circumstances of exposure. Depending upon the circumstances, the investigator may choose to conduct the investigation by telephone, but must obtain the required information to complete the PEIR or Antimicrobial Exposure Episode Report form. **Be aware that many antimicrobial pesticides are category one materials and require the user to wear eye and hand protection**. The investigator should document any violations uncovered during the investigation and consider enforcement discretion (see Enforcement Guidelines). In addition, the investigator should send DPR's "What You Need to Know About Using Disinfectants, Sanitizers, Medical Sterilants, and Other Antimicrobials in the Workplace." (See website http://www.cdpr.ca.gov/docs/enfcmpli/cmpliast/antimic.pdf for a copy of the leaflet.)

d. Illnesses alleged to be caused by pesticide residues on produce

Whenever you are called about a (raw agricultural commodity) produce-related illness, take the name, address, and telephone number from the person making the complaint. Record the type of produce involved and when and where it was purchased.

Inform the caller that these situations are handled jointly by the County Health Department, the CAC, and DPR. Follow the procedures below when investigating these complaints:

- Forward the complaint information to the County Health officer and request that he/she evaluate the complaint and determine if the illness is possibly pesticide related.

- Samples of produce related to "alleged illnesses" should not be collected or submitted to the California Department of Food and Agriculture (CDFA) laboratory for analysis until the county health department confirms the illness is, at least, "possibly pesticide related".

- If the county health department determines the illness to be possibly pesticide related, your investigation must be initiated immediately. Samples should be collected, if available, of any remaining portions of the suspect produce, or of any of the same lot at the location of purchase. Contact the EBL or the EB regional office for arrangements for sample analysis.

- If the county health department determines that the illness is unlikely to be pesticide related no further action should be taken by the CAC.

e. Suicide/Attempted Suicide

Suicides and attempted suicides present a unique problem for the investigator. In cases of suicide, obtain a copy of the Coroner's report and use it as the basis of the CAC report. In the case of an attempted suicide, the investigator must avoid aggravating the mental state of the individual. The investigator should avoid direct contact with the individual.

Obtain information from police records, paramedics, and physicians. **We need only to determine the identity and source of the pesticide, the extent of exposure, the signs and symptoms of illness/injury, and possible violations uncovered by the investigation.** In certain situations, such as involvement of a restricted material, additional information may be required. If the medical information cannot be obtained, identify the treating physician (name, address, telephone number) and forward to WH&S. WH&S may be able to obtain more information, if necessary.

f. Fatalities

Upon learning of a fatality, the investigator must obtain as much information about the circumstances as quickly as possible. Information such as the person's activity, potential pesticides involved, exposure scenarios, work history, and episode location are needed for decisions concerning environmental and biological sample collection. Interview the employer, supervisor and co-workers to obtain this information. Based on this initial information, the investigator may need to collect clothing, PPE, DFR, and tank mix samples, if the local law enforcement officials allow it. These are generally time-sensitive samples and must be shipped on ice, blue ice or dry ice by next-day delivery. Prompt sample analysis will provide the investigator with valuable information he/she can use in further investigating the episode. Be sure to discuss sample collection with your EBL. The EBL will need to coordinate the sample analysis with WH&S.

Since the county coroner may perform the autopsy within a short period after receiving the body, please notify WH&S promptly with the name and telephone number of the county coroner. WH&S may ask the coroner to collect tissue and fluid samples (such as blood for cholinesterase inhibition or analysis of chemicals, urine for pesticide metabolites, skin wipes, stomach contents, and tissue samples). WH&S will coordinate with the county coroner for sample collection during the autopsy and for the transport and analysis of these samples.

g. Pest Control Equipment Accidents

Investigate pest control equipment accidents (fatal or nonfatal) to determine if a pesticide exposure possibly affected the handler's judgment or abilities. An investigation of a pest control equipment accident should include: a work history for 14 days prior to the accident to evaluate possible pesticide exposure; a determination of the need for medical supervision; relevant medical tests (e.g., cholinesterase baseline and follow-up tests); supervision; and the most likely cause of the accident based on the statement of the handler, employer and any eye witnesses. For pest control aircraft accidents, obtain, if available, the most likely cause of the incident according to the National Transportation Safety Board (NTSB information on the accident can be found at http://www.ntsb.gov/NTSB/query.asp). If a fatality occurred, refer to the section on pesticide-related fatalities. Review the priority episode investigation criteria to determine if the episode warrants a designation as a priority episode.

3. Employee/Citizen Complaints

a. General Information

DPR and the CACs receive complaints alleging misuse of pesticides, human or animal health effects, environmental damage, or pesticide injury or damage to crops or property. DPR's policy and expectations mean all complaints are investigated. However, the CAC has discretion to consider availability of resources and other priorities in determining the extent of the investigation and level of effort to invest.

When DPR staff receives a complaint, they refer the complainant to the responsible agency for investigation. DPR does not normally ask the investigating agency for a follow-up report on routine complaints except for complaint referrals from the US EPA where it has requested a report and complaints received from the DPR executive office with an assignment to respond.

DPR refers pesticide use related complaints to the CAC and does not normally conduct its own investigation except where a possible conflict of interest may be involved. For complaints involving CAC performance, DPR reviews the CAC action and determines whether the CAC responded in an acceptable manner. If DPR determines the CAC performance is acceptable, DPR informs complainant of the findings and closes the case. If DPR determines the CAC should have conducted a more in-depth investigation, DPR will discuss the case with the CAC and inform the complainant that DPR requested the CAC to pursue the issue further.

Normally, DPR investigates complaints of pesticide product compliance or pesticide residues on produce in the channels of trade. DPR expects the CACs to conduct a follow-up investigation of residues found on crops grown in their county to determine if the residue was the result of pesticide misuse.

A complaint investigation becomes an illness investigation if the investigator discovers either: 1) The complainant and/or others allegedly suffered illness symptoms from a pesticide exposure and sought medical attention; or 2) Five or more people reported symptoms, but did not seek medical attention. Upon completion, submit the investigative report to DPR. WH&S will assign a case number to the individual(s).

b. Citizen Complaints

Citizens should complete and sign the appropriate complaint form, **but an investigation must be conducted** even if the complaint is oral. For complaints of exposure/effects, use the Report of Human Exposure or Unsafe Condition form (PR-ENF-074). Even if the complainant does not wish to sign the complaint form, the forms still serve as the basis for the interview and to record the information received. For these types of episodes, review the following items: (1) Did the exposed person(s) seek medical attention? (2) Has the hazardous situation been resolved? (3) Is pesticide misuse alleged? (4) Could the problem impact the pesticide regulatory process in any way? (5) Are there any violations? Attempt to obtain as much information as possible from the complainant at the time of the initial contact (signed statement, medical records release, etc.).

c. Employee Complaints

An employee has a right to a safe workplace (*Title 3 CCR section 6702*). The employer has the responsibility to remove unnecessary hazards from the workplace and to provide protective devices for hazards to which the employee may be exposed.

The employee has the right to file a confidential complaint alleging unsafe working conditions. The employee's legal rights must be protected at all times during the investigation of a complaint (*Labor Code sections 6309 and 6310*; website: http://www.leginfo.ca.gov/ cgi-bin/displaycode?section=lab&group=06001-07000&file=6300-6332). The name of the complainant must be kept confidential unless that person specifically requests otherwise (*Labor Code section 6309*).

An episode involving an employee complaint about an unsafe workplace may require immediate action (*Title 3 CCR section 6704*). Employee complaints may be formal or informal. A formal complaint is an oral or written allegation by an employee, union representative or other employee representative (with or without a contract). If the complaint is a formal complaint, the Labor Code (section 6309) and the DIR/DPR/CACASA MOU (website: http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf1993/1993009.pdf) requires that an investigation begin within three working days. The CAC must inform the complainant of any action taken or the reasons for not taking action. If there is no reasonable basis for the complaint, include the supporting evidence in the episode investigation report. Employee complaints from other sources (e.g., friends, spouses, or special interest groups) are informal complaints and are not limited by the three working day response; otherwise they are handled in the same manner as formal complaints. Interviews should be conducted in private without employer representation. This interview should cover the conditions of the workplace. Do not give advance notice to the employer that an interview pursuant to an employee complaint is to be made.

For employees filing complaints involving human exposure/effects due to pesticides, use the Report of Human Exposure or Unsafe Condition form (PR-ENF-074). The CAC may also receive written complaints on referral from Cal/OSHA as well as by letter from the employee or employee representative.

Conduct the basic investigation of an employee complaint of a hazardous workplace in the same manner as complaints received from other sources. Give special attention to the allegations included in the complaint. Determine the following: (1) Is there any evidence to support the allegation? (2) Has the hazard been removed or are protective devices available to control employee exposure? (3) Did violations occur? (4) Should other agencies be involved in the investigation (e.g. Cal/OSHA)? If the employee or coworkers reported suffering illness symptoms, recommend they seek medical attention.

Normally, an employee complaint triggers one or more types of inspections using the Field Worker Safety Inspection form (PR-ENF-103), Pesticide Use Monitoring Inspection forms (PR-ENF-104 through 108) or the Pest Control Records Inspection forms (PR-ENF-109 or 110). Do not give advance notice of an inspection pursuant to an employee complaint.

The DIR/DPR/CACASA MOU requires DIR to refer complaints of unsafe practices involving agricultural, as well as nonagricultural use of pesticides to the CAC. The CAC refers complaints of unsafe workplaces involving manufacturing or formulation plants and commercial (i.e., marketing or distribution, not user) storage, transportation or disposal of pesticides or pesticide containers to DIR for investigation, through the EBL. The CAC should contact the local DIR representative to determine if a joint investigation is necessary when questions arise about the jurisdiction of an employee complaint. The Labor Code (section 6313) requires DIR to investigate the causes of any employment accident that results in a fatality or involves hospitalization of five or more people for 24 hours. (NOTE: This is different than the priority episode investigation criteria.) These types of episodes are likely to result in joint investigation.

d. Employee Complaints of Retaliation

The employee has the right to protection against retaliation by the employer when he/she files a complaint (*Title 3 CCR Section 6704*). If you receive a complaint from an employee regarding any incidents of retaliation (including threats of retaliation), inform the employee that the Department of Industrial Relations, Division of Labor Standards Enforcement (DLSE) handles retaliation cases. See Appendix C or the DSLE web site (http://www.dir.ca.gov/dlse/DistrictOffices.htm) for a list of DSLE district offices. Provide the employee with the telephone number and address of the nearest DLSE office. DPR recommends that the investigator tell the complainant to provide the DLSE representative with the name of the investigator. This will allow the DIR investigator to contact the CAC investigator.

Information regarding retaliation is CONFIDENTIAL. DO NOT document *any* information regarding retaliation on an inspection report or on any document that will be received by the employer. DO NOT discuss any information regarding retaliation with the employer. Inform your supervisor of any retaliation complaints.

4. Environmental Effects Episodes

Since non-human effects episodes cover a wide range of types, the specific objectives vary. In general, the objectives are to identify any violations and gather evidence to support an enforcement action. More specific objectives are listed under each heading.

a. Illegal Residue Detection

The CAC responds to illegal residues on produce when notified by the DPR EB regional office or when their own observations or record reviews indicate a crop may contain an illegal residue. Information regarding illegal residue cases initiated by the CAC should be given to the DPR EB regional office as soon as possible.

The CAC has two areas of responsibility regarding illegal residues: 1) contain and control suspected crops in the field, and 2) investigate illegal residue episodes to determine if they resulted from violations of pesticide laws or regulations.

The first priority in residue cases is containment of the produce suspected of contamination and determination of the contamination. The grower and source field(s) should be identified quickly. Suspect fields should be placed under a prohibit harvest order and sampled. Fields suspected of contamination can be held under FAC section 12601 if it is within one week of harvest. The **authority to seize** is under FAC sections 12601, 12603, and 12671. The residue must be confirmed by sample analysis within 24 hours. Once the illegal residues are confirmed, issue the grower a **Stop Harvest Order** citing FAC section 12673. (See the **Sample Collection** section (section IIIA) of this manual for commodity sampling.

A **"Pack, Ship, and Sell"** letter is a compliance action with several purposes. It informs a person that there may have been a violation of section 12671 of FAC; it explains how the violation was discovered and what is in violation. It warns a person of the possible consequences of the violation or continued violation. Only the Director has authority to levy a civil penalty for a violation of FAC section 12671. Under certain conditions, it is permissible for the CACs to issue a Pack, Ship, and Sell letter.

If it is determined that a grower is in violation of a pre-harvest interval, no sampling is required. In these cases the field should be held using FAC section 12672 until the interval has expired.

Once the contaminated field has been identified and harvest has been stopped, the episode should be investigated in the same manner as other types of episodes. Residue cases are categorized as either over tolerance or no tolerance established (NTE). Over-tolerances are commonly caused by violation of the pre-harvest interval, use at too high a rate, too frequent use, or other label violations. NTE residues are commonly caused by use of a pesticide not registered for that commodity, drift, spray rig contamination or violation of a plantback restriction. Investigations should include an assessment of applications made to the subject (targeted) field and to all adjacent fields.

b. Fish and Wildlife Effects

The Memorandum of Understanding between DPR/CACASA/DFG (see website: http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2000/2000atch/attach30.pdf) establishes procedures for coordinating investigations of episodes involving injury or death of non-target fish and wildlife, coordinating laboratory analyses, and coordinating enforcement actions. The Pesticide Wildlife Incident Response Plan Agreement established a formal notification system of pesticide incident monitoring to ensure mutual awareness of injuries or death of non-target fish and wildlife attributable to pesticides.

A fish or wildlife episode investigation (need not be a priority episode) requires immediate notification of DPR (Regional Office) and DFG central dispatch (1-888-334-2258). Appendix F shows the DFG regional office map.

A fish or wildlife investigation requires determination of the circumstances, what and/or who is responsible. Some of the circumstances to consider are:

- What kind of wildlife/fish are involved? How many are affected?

  This is an area that may be more appropriately determined by a DFG Biologist.

- The causative agent or condition.

  The laboratory may be able to help determine the causative agent or condition, but not always. Extremely decomposed biological samples make analysis difficult, if not impossible. Moving water may dilute the pesticide to levels below the limits of detection. In these cases, the investigator must rely on circumstantial evidence. See the **Sample Collection** section (section IIIA) of this manual for water sampling techniques.

- How and when was the pesticide introduced?

  If the pesticide is known, review the pesticide use reports. Temporary flight strips or field drainage can be a cause. A map of the canal or watercourse showing direction of flow and extent of kill may reveal a pattern to the kill. Do not overlook applications of aquatic herbicides; large volumes of decaying vegetation depletes oxygen and causes fish kills, even though the herbicide itself is not toxic to the fish. If a wildlife loss, consider whether secondary poisoning may be involved.

For more information on how to investigate fish and wildlife kills, consult DPR's Pesticide Wildlife Incident Response Plan (http://www.cdpr.ca.gov/docs/county/training/trngmenu.htm#pestwild).

c. Emergency Hazardous Materials (Pesticides) Incidents

Hazardous materials incidents (i.e., pesticide spill or fire) often involve response from multiple agencies, such as fire, law enforcement, emergency medical services, environmental health, and the State of California Office of Emergency Services.

The County Emergency Response Plan will designate lines of communication. In most cases, the CAC should contact the lead agency designated for that county. This is necessary to avoid confusion and duplication of effort during an emergency situation.

Specialized techniques, equipment and organizational concepts are often required for adequate incident response. There are times when a defensive, rather than an offensive, posture is the appropriate response to a hazardous material incident. An offensive posture usually entails immediate aggressive action in a situation where the consequences of abating the hazard are known and the means to respond appropriately are available. A defensive posture is appropriate when the consequences of the responder's action are not clearly understood.

Do not leave a hazardous area unattended under any circumstances. If necessary, request members of the public to telephone your supervisor. Do not approach a spill or fire site that may involve toxic substances unless thoroughly trained and equipped with adequate protective devices. Any approach, especially of fires, must be from the upwind side.

Consider two things in securing the site: (1) remove unauthorized people and/or keep them away from the area; and (2) prevent the spread of the material insofar as possible. If possible, safely prevent spilled material from entering drainage systems. Containment of liquids may be accomplished by diking with readily accessible materials.

If there is an injured person needing assistance, use good judgment before approaching the site, as you risk the possibility of contaminating or injuring yourself. This is especially important if you are alone at the site.

If contaminated people are accessible, speed is essential. One person should begin first aid treatment while another, if available, calls for assistance. Take precautions such as wearing necessary personal protective equipment to avoid contamination during this process. Decontaminate the victim immediately to stop pesticide exposure. Arrange for or provide transportation of the victim to a medical facility as soon as possible. Save the pesticide container and material, if any remains, or get a readable label to identify the chemical for a physician.

Obtain information on the pesticides involved in an episode from persons at the site or from the driver in the case of a highway spill. Double-check the information, if possible, with another source. It is essential to get full information about the chemical, as soon as possible, in order to determine the proper course of action. If possible, obtain intact labels from materials involved for reference. Use binoculars, if available, to read labels from a distance if the site is deemed unapproachable.

5. Property Damage or Loss

Many circumstances may result in property damage or loss episodes. The most common episodes include drift of herbicides, contamination of commodity with unregistered pesticides, poisonings of domestic animals and bee kills. The complainant may want the investigator to assist in securing monetary compensation either directly or through findings that can be used in civil court. As the investigator, collect unbiased information useful in determining if pesticide laws or regulations were violated. Do not allow influence by possible civil action. Investigations are conducted regardless of compensation to the affected party.

If crop reduction or total loss is involved, obtain production history for the field in question or for similar fields. The damage pattern may give clues as to the cause and/or direction of the source. Plan your sampling so that it provides useful information. Refer to the **Sample Collection** section (section IIIA) of this manual for direction. For example, in drift cases, perform gradient sampling, a series of 5 samples taken at varying distances between the suspected source of the drift and the alleged site of the property damage or loss. If drift occurred, the residue level will generally decrease in proportion to the distance from the application site. Consider local topography, especially when investigating episodes involving the fumigants. Always prepare a map showing the affected areas and sampling locations. Photographs may also prove useful, if effects are visible.

If the problem appears to be connected to the efficacy or performance of a pesticide product, gather complete information about the application site (including soil types) and the application. This includes all chemicals (including adjuvants) in the mix, pH of the water, and variety of the plant/animal injured. When possible, obtain samples of the suspected pesticides from the tank or container for laboratory analysis. Contact your DPR EBL when investigating episodes involving pesticide performance.

6. Drift

a. General Information

- Background:

  Some pesticide drift is expected from all aerial and other aboveground pesticide applications. Recognizing this, California's Legislature established as the legal standard that pesticides be used in a manner that prevents substantial drift to nontarget areas (*FAC section 12972*).

  Even though the Title 3 CCR section 6000 definition of substantial drift includes the phrase "quantity of pesticide," a determination that drift was substantial is NOT dependent on the amount of pesticide that was deposited outside the target area, but, rather, by a determination that the applicator did not use due care. Pesticide drift is substantial if it exceeds what would have occurred if the applicator had used due care.

- Definitions:

  Drift: Pesticide movement through the air that is not deposited on the target area at the time of application. Drift does not include the movement of pesticide and associated degradation compounds off the target area after the application, such as by translocation, volatilization, flux, evaporation, or others forms of "lift off". Drift also does not include the movement of pesticide dusts or pesticide residues on soil particles that are windblown off the site after the application.

  Substantial drift: The quantity of pesticide outside of the area treated is greater than that which would have resulted had the applicator used due care (*Title 3 CCR section 6000*).

  Due Care: The degree of care that a prudent and competent person engaged in the same line of business or endeavor would exercise under the same or similar circumstances. When a person does not exercise due care, the person is said to be negligent.

b. Investigation

When the CAC becomes aware of an incident involving pesticide drift, the CAC must promptly investigate the episode. This includes complaints made anonymously and/or not in writing. Some episodes may meet the criteria for initiating a priority investigation.

The CAC must complete the investigation even if the complaint is withdrawn or the complainant receives compensation for any alleged damages.

When conducting an investigation involving pesticide drift, the CAC should determine whether the applicator violated FAC section 12972, Title 3 CCR section 6614, or other regulations.

If an application results in a pesticide contaminating the bodies or clothing of persons not involved in the application process, damaging nontarget crops or other property, or contaminating property that prevents normal use of the property, then, generally, the CAC will be able to show that the applicator applied the pesticide when a *reasonable* possibility existed that the consequence would happen and the applicator violated Title 3 CCR section 6614.

However, occasionally there could be a case where an application caused the consequence described in Title 3 CCR section 6614, but the evidence shows that the that the resulting consequence was not a reasonable possibility. While the investigator should be aware of this potential argument, this is not investigator's role in the case. That is the role of the defense.

For a discussion of what is required to prove issues related to substantial drift at a hearing, refer to section 7.2 in the hearing officer Roundtable Project (http://www.cdpr.ca.gov/docs/county/training/hrngofcr/hearofficer.htm).

c. Establishing Due Care

To prove that an applicator failed to use due care in making a pesticide application, the CAC must present sufficient evidence to show that the applicator failed to do what a reasonable applicator would or would not have done under the same or similar circumstances.

To determine whether an applicator used the care that was due, it is essential to determine what the weather and other conditions were at the time of the application, what the conditions were at and near the target area, and what decisions were made and what actions were taken by the applicator. The applicator's actions, or lack of actions, will be the deciding factors in determining whether the applicator used due care under the circumstances that existed at the time of application, and, thus, whether the pesticide was or was not used in a manner to prevent substantial drift to nontarget areas.

This determination may involve referencing published good established practices or having other applicators specify the actions they would or would not have taken under the conditions that existed at the time of application, and comparing them to the actions the applicator took.

d. Applicator Responsibility to Prevent Adverse Effects

Title 3 CCR section 6614 places responsibility on the applicator *prior* to making a pesticide application to evaluate the surrounding properties and other conditions (e.g., application equipment, meteorological conditions, the property to be treated, etc.) and determine the likelihood of harm or damage in order to decide whether the application should be made.

Title 3 CCR section 6614 also requires the applicator, *during* the application, to continually monitor these conditions to determine if a likelihood of harm or damage has arisen during the application in order to further decide if the application must be discontinued.

Basically, Title 3 CCR section 6614 states that even though the applicator will use the same care that reasonable applicators would use under the same or similar circumstances to minimize drift to nontarget areas, there still are certain situations where the application cannot be made, or, once started, cannot be continued. These situations involve possibilities that are *reasonable* ones under the circumstances of the particular application, i.e., possibilities of which the applicator *reasonably* should have known.

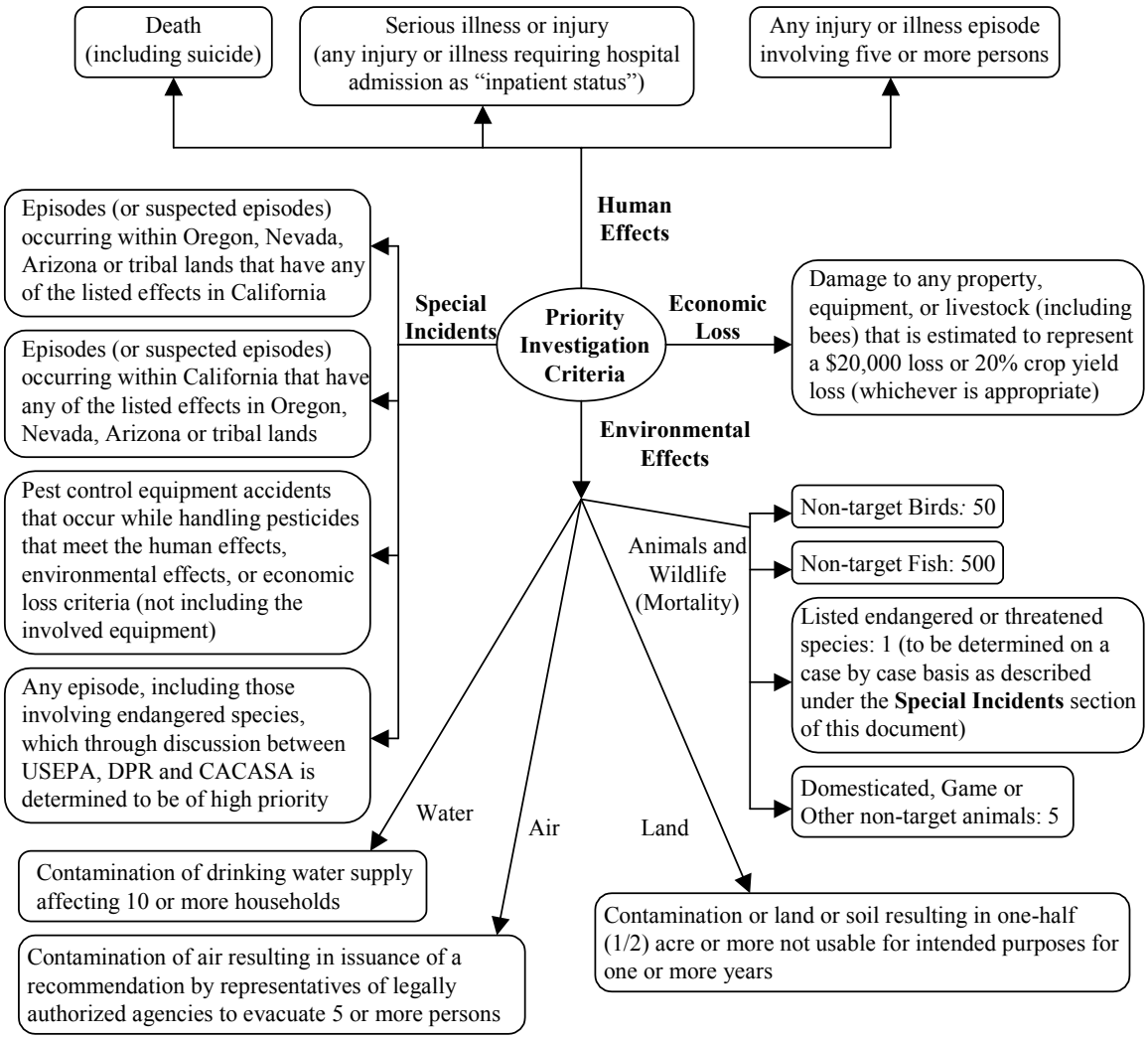
B. Priority Episode Investigations

http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2003/2003atch/attach39.pdf

The investigator must consider the priority episode investigation criteria contained in the US EPA/DPR/CACASA Cooperative Agreement for each episode. When the investigator learns of an episode that **appears** to meet one or more of the effects listed in Figure 2 and where there is a reasonable possibility that it could have resulted from the use or presence of a pesticide, he/she must promptly report the episode to an EBL or the EB regional office.

Figure 2

Priority Episode Investigation Criteria



For priority episode investigations, the US EPA/DPR/CACASA Cooperative Agreement makes no distinction between use-related and non-use-related episodes. DPR reports all priority episodes to the US EPA irrespective of the agency with lead investigative responsibility. For episodes that fall outside of DPR/CAC jurisdiction, DPR will notify the agency with the lead investigative responsibility. For episodes that occur outside of California with any of the listed effects criteria occurring in California, DPR will refer the episode to US EPA.

DPR's EB assigns a priority episode number and sends a Pesticide Episode Notification Record (PENR) to all agencies with responsibility. The EBL works with the CAC during the investigation to ensure State and US EPA concerns are met. This includes investigating all possible violations and taking appropriate enforcement action. View these episodes as an opportunity to examine the entire regulatory process.

According to the US EPA/DPR/CACASA Cooperative Agreement, a priority episode investigation must commence immediately whenever possible, but no later than 3 working days from referral to the CAC. The CAC will conduct a full investigation on all priority episodes within our jurisdiction. Based on preliminary information from the CAC investigation, the EBL submits an updated report of the priority episode to the DPR EB headquarters office no later than 15 days following the issuance of the PENR. This updated report should include the CAC's initial findings, suspected violations, projected completion date and contemplated enforcement actions. The CAC must submit the completed investigative report within 45 day of completing the investigation. The DPR final report must be submitted to US EPA within 75 days of the CAC completing the investigation. If the investigation cannot be completed by the date set by the CAC, the CAC must notify the EBL on Form PR-ENF-097 explaining why the priority investigation cannot be completed by the set date. The CAC must also specify the length of time needed to complete the investigation.

In the CAC investigative report, the investigator should cover all aspects of the incident (including those not directly contributory). The final CAC report must contain all relevant evidence that might contribute to an evaluation of the cause, effect and responsibility. During the investigation, examine the activities of all persons involved in making the decision to use a pesticide (including the pesticide dealer and pest control advisor), those who applied it, and when applicable, those involved in deciding when to send a field crew into a field to perform cultural activities.

Due to the nature of events resulting in priority episode investigations, other agencies, including US EPA, commonly review these reports. Often, these episodes attract media, public and/or legislative attention.

C. Conducting Witness Interviews

The purpose of an interview is to gather information or evidence directly related to the episode. Interviewing individuals associated with a pesticide episode is an integral part of an investigation. The circumstances of the episode dictate the individuals who should be interviewed. For episodes involving drift, structural applications, etc., obtain information from the applicator. If the investigator cannot interview an individual, he/she should state the reason in the episode narrative.

Before beginning your interview, introduce yourself by full name, title and your employer. Tell the interviewee the purpose of the interview. Allow the interviewee to tell his story. Fill in any gaps in the story by asking simple direct questions. Maintain a patient demeanor throughout the interview. Do not use jargon, technical terms, or codes that the interviewee may not be understood.

As part of the interview, make sure these five questions are answered:

1. What happened?
2. Where did it happen?
3. When did it happen?
4. Who did it?
5. Why did it happen?

Who should be interviewed: Individuals directly involved in the episode must be interviewed whenever possible. These individuals include the injured individual(s), employer and/or supervisor, applicator and any eyewitnesses to the episode. In episodes involving 2 or more ill workers, interview each worker individually. Write an interview summary for each individual interviewed.

Who should be present at the interview: Consider an interview as a private conversation so keep the number of people present to a minimum. Limit the interview to the investigator(s), interviewee and an interpreter (if needed). For employees, do not conduct the interview in the presence of the employer/supervisor as this creates the potential for intimidation and/or retaliation against the employee.

Interview Locations: Choose the interview location to afford a private conversation. The location needs to make the interviewee feel comfortable. Government offices as well as the individual's home make excellent interview locations. When these locations are not available, choose a less desirable, but still acceptable, location to conduct the interview. Such locations include an employer's office (without the employer present) and outdoor work areas such as agricultural fields. The interviewee may feel uncomfortable talking to the investigator because of the proximity to the employer and/or supervisor. When interviewing a worker in a field setting, conduct the interview at a suitable distance from the crew and crew foreman so as to ensure privacy and confidentiality.

Interpreters: When dealing with non-English speaking workers, ensure adequate interpreters are available. Prior planning will establish a network of interpreters who can be contacted and retained on short notice in an emergency.

Using the right interpreter is extremely important. The key is to make the interviewee feel comfortable with the interpreter so he/she provides accurate information pertaining to the episode. Government employees and family members make excellent choices as interpreters. Do not use the employer, supervisor, foreman or other company employees unless specifically requested by the employee. Using such people creates the potential atmosphere for intimidation and threats of reprisal and can result in the employee providing less or inaccurate information.

Documentation of Interviews in the Investigative Report: Write a separate narrative summary for each individual interviewed. For each interview, state whom you interviewed, who was present at the interview, the date and time the interview took place, where the interview took place and what the interviewee said.

Contact Log: Keep a contact log for each investigation. Record all attempts to contact individuals involved in the episode and record the results of each attempt. The contact log provides written evidence of the investigator's efforts to conduct an investigation and the results of that effort. Attach the contact log to the investigative report. The log substantiates an investigator's effort to conduct a thorough investigation, especially when crucial individuals can't be located or refuse to cooperate with the investigator.

Interview Questions: To assist investigators, a series of interview questions in English and Spanish can be found in Appendix E for the following types of episodes:

a. Pesticide Handler, Employee
b. Pesticide Handler, Employer
c. Field Worker Exposed to Pesticide (Drift or Residue)
d. Private Citizen Exposed to Pesticide Drift
e. Private Citizen Exposed to Pesticide Residue

Investigators may develop additional questions as needed depending upon the circumstances of the episode.

III. EVIDENCE COLLECTION

A. Sample Collection

1. Purpose and Goals

The purpose of collecting samples is to provide physical evidence to prove violations of pesticide laws, to assess the nature and degree of exposure, and to guide mitigation strategies.

The goal of the sampling is to prove or disprove an element of a violation or establish the cause of a pesticide-related episode. Determine the goal of the sampling and the appropriate sampling methods to use to meet that goal. Decide what evidence the samples will provide and make a sampling plan to establish that evidence. When seeking approval from DPR for the samples, know what information the samples will provide for your case. The information should fall within the DPR's purpose for collecting samples.

2. Formulate a Sampling Plan

Assess the situation in the field and determine what kinds of samples will achieve your determined goal. The nature of the incident will largely determine the types of samples and the way to collect the samples. Identify the type and pattern of samples to collect, the sampling equipment required to collect the samples, and the equipment needed to store and ship the samples to a laboratory. Determine the elapsed time since the pesticide application as pesticide degradation may limit the value of collecting samples. Collect samples as soon as possible in the investigation to provide the most meaningful results.

Remember that simply showing the presence of a pesticide at the episode site will usually not provide you with the necessary evidence to prosecute a violation or prove the pesticide caused a pesticide-related effect. To the extent possible, the sample evidence should show how the residue got to the episode site and the source of the contamination. Additional sample evidence should also rule out any other possible sources of the contamination. Consider these when determining the number and pattern of the samples to collect. The sampling plan should include the number, type, and location of the samples as well as safety precautions, quality assurance requirements, chain of custody, storage and preservation requirements for the samples. Samples must accurately represent the problem area to justify the effort and expense of analysis.

Good sampling procedures and careful investigative techniques will enable you to report your findings with confidence.

3. Communication Protocol for Samples

This protocol will help avoid delays, unnecessary sampling, and improve tracking. Where possible, consult with your EBL or regional office supervisor before taking samples in order to discuss the sampling strategy to be used, and to identify any possible laboratory requirements. If prior contact is not possible, follow the protocols in this manual, noting any deviation from the protocol in the case notes. Fax a diagram of the sample sites and the **Sample Analysis Reports** (PR-ENF-030) to your EBL.

The EBL will consult with the CDFA laboratory staff or with WH&S staff (depending on which lab is analyzing the samples) to determine the appropriate sampling, storage, and shipping procedures. This process also alerts the chemists to any special methods or reference standards that may be required.

Contact your EBL or the regional office supervisor prior to shipping the samples in order to verify which laboratory will perform the analyses. Be prepared to provide the following information when you call:

a) The number and type of samples.
b) The pesticides for which analyses are being requested
c) The circumstances of the investigation such as illness, injury, or damage involved or alleged; any relevant factors; and the enforcement potential.

After receiving approval from your EBL, ship samples to the assigned lab (see section on shipping). Samples arriving at the lab without prior DPR approval will be held by the lab until they receive the appropriate approval to analyze the samples.

4. Sample Types, Sample Units and Sampling Patterns

Before putting together the sampling equipment, determine the types and units of samples to collect and the sampling pattern to use.

a. Sample Types

- Total Residue: Total Residue samples are used to determine the presence of pesticides and the amount detected. The analytical results are expressed as weight of the pesticide/total weight of the sample (ppm).

- Dislodgeable Foliage: Dislodgeable foliage samples are collected to determine the potential for exposure of workers through contact with the foliage. The analytical results are expressed as weight of the pesticide/surface area ($\mu g/cm^2$).

- Surface or swab: Swab samples are used to detect pesticide contamination of or drift onto such surfaces as cars and windows. The analytical results are expressed as weight of the pesticide/sample area ($\mu g/cm^2$).

- Volume: Volume samples are used to test for pesticides in air and water. The analytical results are expressed as weight of the pesticide/volume (mg/mg^3 or $\mu g/l$).

b. Sample Units

There are four different kinds of sample units: single, duplicate, composite and split.

- Single sample: A single sample provides separate results for an individual sample site.

- Duplicate samples: Duplicate samples are collected under identical conditions, when an affected party requests samples. Collect duplicate samples (two or more) in the same manner as a single or a composite sample from the same site.

- Composite samples: Composite samples are two or more subsamples of equal size that are combined to represent a field or site. Composite samples are taken to determine whether or not an area is contaminated, to determine if other samples should be analyzed and to identify specific chemicals in the sample. Usually a composite sample consists of a portion of each grid sample (as described in the Sampling Patterns section) combined in one container. Collect enough material in each grid sample to allow for this subtraction so that no sample is underweight. Designate the sample as a composite on the **Sample Analysis Report**. The most common reason for taking a composite sample is to obtain fast laboratory analysis and enable you to take crop disposition action on a field suspected of carrying an illegal residue.

  Another example of when to collect a composite sample is during an investigation of a reported illegal residue and the source only tracked to a group of fields. In this case, composite the samples from each of the suspected fields by collecting the commodity from each of the corners and from the center of each field. Once the contaminated field is identified and a cease and desist stop harvest order issued, determine the appropriate sample pattern to use in pursuit of a misuse investigation. If possible, discuss the reasons for collecting a composite sample with your EBL prior to collection.

- Split samples: created by dividing one sample into two equal and identical portions for the purpose of repeating or verifying tests. Collect twice as much material for a sample that will be split as for a single sample.

c. Sampling Patterns

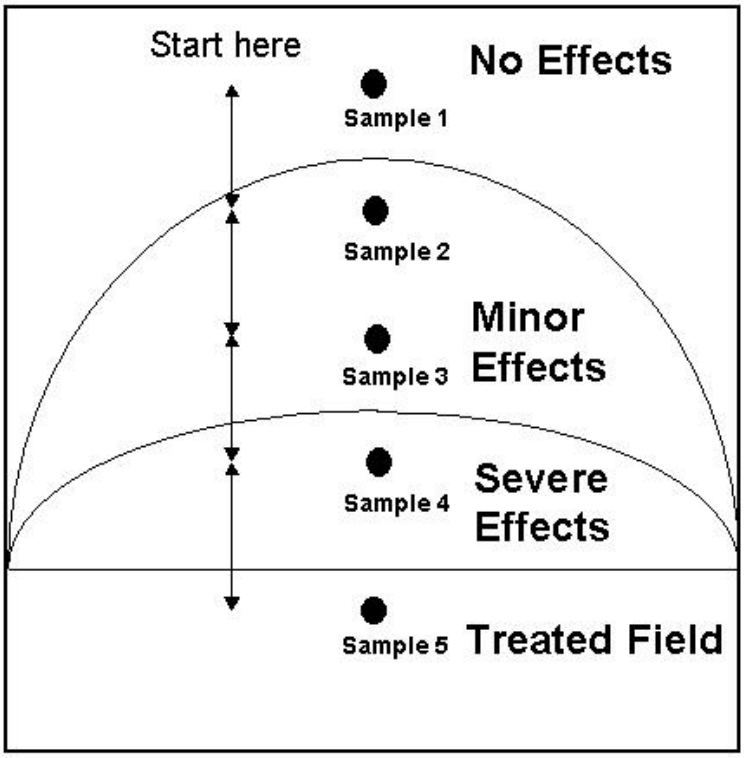
Collect investigative samples in 5-point gradient or 9-point grid patterns. Single point samples are generally inadequate for enforcement purposes and for assessing the nature and degree of exposure. Sampling plans other than gradient or grid must be discussed with the EBL prior to collection.

Take precautions to prevent cross contamination. When sampling, always sample the area of suspected least contamination and work towards the treatment area. Wash or change tools and gloves between samples.

i. Gradient

Gradient samples establish drift of a pesticide. If more than one source of contamination is suspected, collect gradient samples towards each suspected source or use the 9-point grid pattern. Do not composite samples.

Figure3



Gradient Sampling Diagram

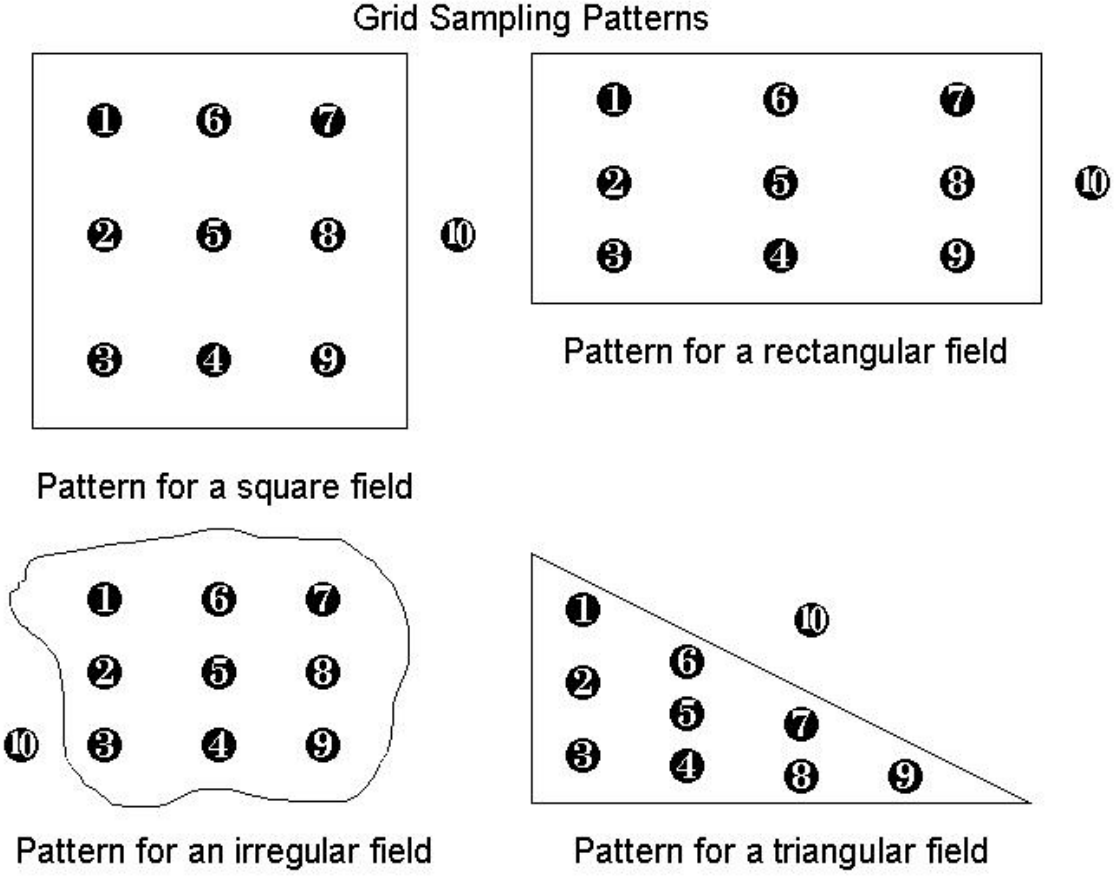
When circumstances allow, collect five samples in a gradient pattern at an approximately equal distance apart. Certain sampling situations do not allow for the collection of five samples (for example, a drift into a small residential yard, or lack of sufficient quantity of sample material). In such cases, collect a minimum of three samples: one from outside of the suspected contaminated area, one (or more) from the contaminated area, and one from the suspected source area of contamination. The gradient pattern should be in a straight line. Start collecting samples from the area that is suspected of containing the least amount of contaminant. Number the samples in the order they are taken. Document in your report the basis for any variation from the standard.

ii. Grid

Grid samples establish the distribution of a pesticide residue at the episode site. The sampling pattern should represent the entire field or site. Each point on the grid represents a single sample and should be kept separate from the others. An episode site may be partially contaminated when an applicator does not substantially confine a pesticide to the treatment site. (If pesticide drift is suspected from adjacent fields, and the source or sources of contamination are unknown, a grid pattern may be used in place of the gradient pattern. This reduces the number of samples to be taken). If misapplication to part of a field is suspected (tank contamination or partial application), but the treated area is unknown, this type of sampling pattern should be used to isolate the area.

The sampling grid pattern in the episode site should start approximately 100 feet from the edge of the field, depending on the field size. As a rule of thumb, the distance from the edges should represent approximately 10 percent of the width and length of the field or site. For example, a 46-acre site 1,000 feet wide and 2,000 feet long has a starting point 100 feet in from the length and 200 feet in from the width.

Figure 4



The sampling grid pattern in the episode site should start approximately 100 feet from the edge of the field. If using the grid pattern to establish drift, collect one additional sample from each of the adjacent fields that are suspected of being the source of contamination. Samples should be in line with, and at an equal distance apart from one another in the grid pattern. Record the sample locations in your investigative notes and diagram(s).

If the field or site is suspected of being partially contaminated, start collecting samples from the area that is suspected of containing the least amount of contaminant. Number the samples in the order they are taken.

5. Sampling Equipment

a. Equipment Checklist

Use this checklist to assemble the necessary sampling equipment.

1. Office supplies and forms
   a. Sample Analysis Report and Sample Analysis Report Evidence Record. (PR-ENF-030)
   b. Stapler and staples
   c. Templates for swab samples - precut from heavy weight paper or card stock
   d. Pens, pencils, permanent markers, note pad
   e. Maps, grower's file, PCO's file
   f. Tape
   g. Release of clothing form

2. Instruments and tools
   a. Shovel, soil probe
   b. Trowel
   c. Knife, pruning shears
   d. Leaf punch
   e. Measuring tape
   f. Land measuring wheel
   g. Surveyor markers or stakes
   h. Scale
   i. Pole with grasping attachment, ladder, net, disposable core tubes, siphon tubes
   j. Camera, film, flash attachment, accessories

3. Personal Protective Equipment
   a. Gloves - chemical resistant and disposable
   b. Coveralls
   c. Respirator
   d. Goggles
   e. Hard hat
   f. Rubber boots
   g. Soap, water & disposable towels

4. Containers
    a. Bags - clean, unused paper (double-strength) and plastic of various sizes
    b. Jars - glass, new or clean, various sizes and Teflon® lined lids &/or foil to seal the lids
    c. Labels
    d. Ice chest

5. Collection supplies
    a. Isopropyl alcohol
    b. Distilled water
    c. 3 - 1 oil
    d. Sterile pads, Sharkskin paper
    e. "Blue Ice"
    f. Paper towels

b. Equipment Maintenance

To decontaminate the equipment, wash and rinse with distilled water, then rinse with isopropyl alcohol. The equipment should be stored in the office or car, in an uncontaminated location. For smaller equipment, an enclosed, airtight container is recommended. The larger equipment should be decontaminated after each use and prior to sampling. All tools that come into contact with vegetation should be washed, rinsed in distilled water, and rinsed with isopropyl alcohol prior to collecting each sample.

6. Sample Site

a. Evaluate the Site

Along with your review of interview notes and records, evaluate the episode site to provide a better picture of what happened. Get a complete view of the episode site. This will be the basis for the episode site diagram. Remember not to contaminate yourself walking through the treated area.

b. Diagrams

Record the following on the episode diagram: episode site, treatment site, landmarks such as buildings and roads, crops and their acreages, location of witnesses, sample sites and numbers, and the site and direction of photographs. Diagrams should indicate the dimensions and orientation. Other useful information is row orientation of the field, wind direction, application pattern and direction. **Remember that the person reading your report may not be familiar with the situation. Diagrams and photographs are a great help in understanding local conditions**.

7. Sampling Procedures

a. General Information

Different types of sample analyses (such as soil to grass) are difficult to compare. Similar materials should be used for comparison samples, such as in cases where treated and untreated areas are to be compared. Sample like-foliage types (grass-to-grass) whenever possible. In drift cases, swab samples will yield a cleaner sample than foliage samples.

Always wear clean or disposable gloves, the required personal protective equipment, and use uncontaminated tools for each sample. For multiple samples, wear new or clean gloves for each sample, and decontaminate the tools between sampling.

Collect samples in previously unused paper bags or clean glass jars. New jars do not need to be cleaned. Sample material should never come in contact with metal or plastic. Metal lids for glass jars should be lined with aluminum foil or Teflon®.

Generally for each sample, collect a minimum of one pound[2] of material per chemical or screen for the laboratory to analyze. If samples are underweight, they may not be analyzed, or analyzed for fewer chemicals than requested. (Exceptions: swab and dislodgeable samples). Measure the sample area and record it in your investigative notes.

Samples must be identified immediately after they are taken. Write the identification number on the paper bag or label the glass jar using a permanent marker. Samples in paper bags should be placed in a plastic bag. This should prevent moisture from coming in contact with the paper bag or label and its contents. Chill the samples as soon as possible. Be prepared by taking an ice chest with "Blue-Ice" into the field for this purpose.

[2] The laboratory needs one pound of material for a 50-gram test for the following reason: One pound or somewhat less than 500 grams (454.5 grams). The initial screening takes 50 grams. The confirmation check takes 50 more grams for a total of 100 grams. The split samples for other laboratories to check (if requested) doubles that to 200 grams. Approximately 200 additional grams are needed for the "Spiked for validation" tests. Spiking tests are a further method of assuring the validity of laboratory practices by spiking the sample with a known amount of the pesticide in question.

b. Sampling Directions

i. Foliage Samples

Foliage samples can be collected in a grid or gradient pattern. Try to collect foliage of similar type such as grasses or broad leaves throughout the sampling area if possible. It will make it easier to extrapolate the data.

a. Whole Leaf Foliage Sampling

Collect foliage from locations with a specific reference point in the field to identify the residue delineation between the sample areas, and to maintain sampling uniformity. It is important to identify the location of each sampling site within the field, because it makes the evidence more credible in an enforcement action. Collect at least **one pound** of plant material per sample per analysis or screen. Be sure to collect enough plant material to accommodate the chemistry laboratory if several analyses are requested. The size of the sample area will vary with the type of location. For example:

Location	**Sample Area**
Field and non-crop	25' by 25'
Orchards and vineyards	4 mature trees or vines in a rectangle
Small plants, seedlings, bud-leaf stage or other minimal foliage condition, or for multiple analysis	Sample a large enough measured area to get a 1 pound sample

Select foliage from all sides of the plant/tree unless drift is suspected. In drift cases, collect the foliage from the side of the plants allegedly exposed to the drift. For most situations, collect the foliage from the outer leaves of the plant/tree. It may be necessary to uproot the whole plant if systemic pesticide absorption is suspected. **Do not** select foliage in contact with soil. Remember, new growth not subject to chemical application may affect the results of an analysis.

b. Dislodgeable Foliage Sampling

Collect dislodgeable foliage samples to determine the potential for human dermal exposure to a pesticide(s). In order to properly evaluate exposure of workers, WH&S requires data from dislodgeable foliar residue (DFR) samples, not total residue samples. Due to degradation, prompt collection of DFR samples is necessary.

If your investigation indicates that dislodgeable foliage samples may provide relevant data for determining how the worker(s) was exposed to a pesticide or evidence for an enforcement action, contact your EBL or EB regional office. Your EBL will contact WH&S and assist you in developing a sampling plan and in providing the specialized equipment needed to collect dislodgeable foliage samples. **Do not collect whole leaves** for dislodgeable residue analysis. Place the DFR samples in an ice chest with ice or blue ice; **do not freeze or use dry ice**.

Dislodgeable foliar residue is reported in a weight-to-surface area ratio. Dislodgeable samples are taken with a leaf punch device that deposits measured leaf punches in an attached clean jar. A sample should consist of forty (40) punches taken with a five-square centimeter punch or sixty (60) punches taken with a 2.5 square centimeter punch. Clean the leaf punch equipment between each sample using water or alcohol and a paper towel.

When punching the leaf, make sure the leaf surface covers the entire cylinder punch area. A partial leaf punch will give an inaccurate result because the total leaf area is less than calculated.

Select a site where people were working or are likely to come in contact with foliage, but where there has been no actual contact with people because the pesticide residues may have been dislodged. The punches should be equally divided between the north, south, east, and west sides of the plant to eliminate any effects from differential breakdown. Avoid taking punches from outside rows, as they may not represent the total area being sampled.

Punches should represent all areas of the foliage normally contacted and reachable. This could include the interior as well as the exterior of the plant. **Do not** sample from new growth or leaves contacting the soil unless you suspect they are the source of contamination. If they are the suspected source, be sure to keep soil-contaminated foliage separate from other foliage samples.

For multiple analyses, sampling should be repeated as described above for each analysis or screen requested. Because you cannot sample from the same area, collect companion samples adjacent to each other. The locations should always be the same size and of the same material. Use a separate jar for each companion sample per analysis and identify with consecutive numbers. The companion samples should represent one sample site. Contact your EBL to determine if companion samples are necessary. There are situations when one sample of 40 punches is sufficient to analyze for two chemicals.

ii. Surface (Swab) Samples

Conduct surface or swab sampling to establish drift, uniform or partial contamination, or the presence of a pesticide on a surface. Surface samples can be taken in patterns, such as in a structure, or in groups to support other sample analyses. Surface sampling should not be used to determine whether or not a hazard exists.

Sample areas may vary in size depending on the estimated concentration of the contaminant. Direct application to a surface would require a smaller sample area than drift from greater distances. As a general rule, sample a 500 cm square area (20 cm x 25 cm). Smooth “inert” surfaces, such as a windshield, are the preferred area to sample. However, follow the same methods for sampling uneven surfaces such as rugs, furniture, walls, walkways, or counters.

Make several disposable templates from manila folders and use them to delimit the area to be sampled. Do not reuse the disposable templates. In situations where a template cannot be used, carefully measure and outline the area to be sampled. String, pins, tape, or a ruler can be used for outlining the sample areas.

Sample surface areas using sterile gauze pads or sharkskin paper [3] moistened with a solvent. Use gauze pads that are no larger than 2 inches square. Fold the sharkskin paper into quarters. To prevent contamination of the sharkskin paper, store two sharkskin sheets in each of several sealed sandwich bags in the sampling kit. When needed, the two sharkskin sheets would be used for each sample. Aluminum can also be used to store the sharkskin sheets.

A control sample must always accompany swab samples. **Take the control sample before entering the episode site.** Moisten two sterile gauze pads or sharkskin papers with the same solvent to be used for the actual sample and place them in a foil-sealed glass jar. Do not contaminate the solvent by placing the gauze pad over the mouth of the solvent bottle. While wearing clean or disposable gloves, pour the solvent over the gauze without touching the bottle. Ship with other samples. Isopropyl alcohol is typically used as the solvent, however, water may be used when sampling for water soluble pesticides such as glyphosate or paraquat.

Select a sample site. Try to avoid areas known to contain waxes as these may interfere with the analysis. Tape the template to the surface area or measure and outline the area to be sampled. Carefully record the area on the **Sample Analysis Report**. Be sure to decontaminate or use new equipment for each sample.

Use two sterile gauze pads or sheets of folded sharkskin per sample. Moisten one pad or sheet with solvent. Wipe lightly horizontally across the measured area with the first pad, folding the contaminated portion in, so that a clean surface of the pad is exposed to make another wipe of the area, and continuing until the whole area has been wiped horizontally. For sharkskin, unfold the sheet as you wipe the measured area so a clean side of the sheet contacts the area being wiped. Place that pad/sheet in a glass jar. Moisten the second sheet with solvent and wipe the area again with the second pad or sheet using vertical wipes. Again, fold the contaminated portions of the pad inward (unfold for sharkskin). Use the clean outward portions to wipe the whole area. Place the second pad in the same jar as the first pad. Record the surface area and sample location on the **Sample Analysis Report**, on the incident diagram, and in your investigative notes. Control samples must have their own **Sample Analysis Reports**.

[3] Sharkskin paper is used in the laboratory as filtering material during the analysis process. It can be used as an alternative to cotton gauze when sampling for residues of chlorpyrifos or other organophosphate pesticides to reduce the likelihood of false positives from residues found in the cotton itself. There are various sizes of sharkskin paper, 15 cm, 16.3 cm, and 18.5 cm. The sharkskin paper comes in boxes of 100 sheets. It can be purchased from E & K Scientific 1085 Florence Way, Campbell, CA 95008 (telephone 408-378-2013) or other laboratory supply companies.

If multiple analyses are required, the sampling should be repeated on samples from adjacent areas as described above for each analysis or screen requested. The locations should always be the same size and of the same surface material. Use a separate jar for each companion sample per analysis and identify with consecutive numbers. The companion samples should represent one sample site.

Store the samples in the refrigerator and ship on "Blue Ice."

iii. Clothing Samples

Be selective when collecting clothing samples. Be sure that the resulting data will be useful in the investigation or for exposure assessment purposes. Coordinate with your EBL and WH&S for clothing samples collected for exposure assessment purposes. Generally clothing samples only tell the investigator that a pesticide exposure occurred and possibly the extent of the exposure, not whether the exposure resulted in a health hazard. Generally, foliage or other samples are collected in conjunction with clothing samples.

Collect clothing only from people who were allegedly contaminated. Consideration must be given to the type of incident involved. Garments such as shoes could be collected if an applicator was allegedly exposed to a pesticide because of failure to wear protective equipment. Shirts, scarves, or jackets could be collected if they were exposed to pesticide drift.

Clothing samples are usually collected away from the episode site. The best results are obtained when the clothing is clean at the start of the day and should be collected the day of the episode (or the next day and ensure that it was not washed). Document what is known about the clothing. Do not collect the clothing if it has been washed unless special circumstances dictate sampling.

If the affected area of the clothing is known, the investigator could cut the affected area out and submit it as a sample. Record the area sampled on the **Sample Analysis Report**.

Place each sample in a clean, unused paper bag to prevent cross-contamination, then place the bagged samples in properly sealed plastic bags for shipment. Chill the samples as they are collected. Store clothing samples in the freezer and ship on ice or blue ice.

Inform the people involved that the clothing will not be returned. To show consent, have them sign a **Release of Clothing** form (see the sample in the Associated Forms section).

iv. Soil Samples

Collect enough soil from the measured area to fill a clean, one-quart jar with at least one pound of material per analysis. Soil samples should be stored, frozen, and shipped frozen on "Blue Ice."

a. Surface Soil Sampling

Surface soil samples are best for misapplication of herbicides and soil-applied insecticides. Collect these samples in grid or gradient patterns to prove an area was contaminated. For pesticides incorporated or otherwise located below the soil surface, take subsurface samples, as described later.

Using a clean spatula, trowel, or other tool to scrape the surface soil down to a depth of one-half inch. The sample area should represent approximately a **four-foot square** (i.e., 16 $ft.^2$ area), depending on the size of the episode site, the concentration of the pesticide residues, and the number of analyses required. If the episode site is large, the suspected pesticide concentration is relatively low, or if several pesticide analyses are requested, you may want to enlarge the sample area. Measure the sample area and depth and record it on the **Sample Analysis Report**.

b. Soil Samples at a Known Depth

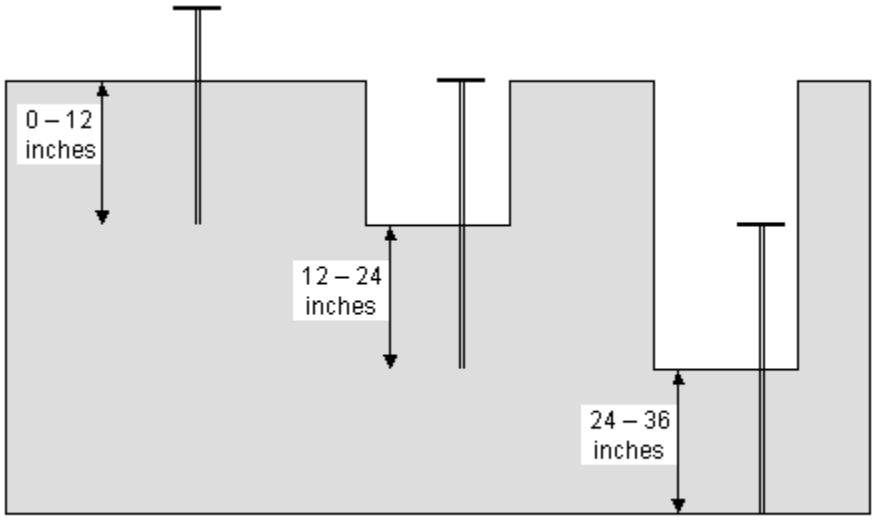
Collect soil samples at a known depth when the pesticide is suspected of being incorporated, band or rod treated, shanked, trenched, or moved below the soil surface by leaching. If the samples are not collected at the proper depth, the sample analyses will be misleading. This type of sampling will generally be collected in a grid pattern within a field or site. The sampling depth could be 0"-3", 3"-6", or 6"-12" for example. Based on your knowledge of the application method, sample at the appropriate depth and record it on the **Sample Analysis Report**.

Select a specific sample location and measure an area of approximately **one-square foot.** The sample area can be changed depending the specifics of the investigation. Record the measurements of the sample area in your investigative notes. Using a spatula, trowel or shovel, remove the soil to the beginning depth you wish to sample. From that point, use clean or decontaminated sampling equipment to collect the soil to the desired depth.

c. Sampling Various Depths Using a Soil Sampling Tube

Take several core samples to the desired depth using the probe. NOTE: It is not recommended to use the probe when a band or side dress treatment was used because it is difficult to determine where the band treatment is located. You could get misleading results.

Figure 5



Sampling Various Depths Using A Soil Sampling Tube

d. Soil Sampling (Known Depth, Furrowed Field)

Chemicals may have been applied in bands or side dressed in furrowed fields. In order to sample from the appropriate area, use a shovel to cut across sections perpendicular to the direction of furrow at each sample site.

- **Single Rows**: Start at the center of the furrow and sample across the bed to the center of the opposite furrow. Collect soil from an area 3" - 6" wide, and 12" - 14" deep, as measured from the top of the bed.

- **Double Rows:** If the field is laid out in double row beds, sample from center of furrow to center of bed at 3"-6" width and 12"-14" depth.

  Place the soil in a large paper bag and mix thoroughly. Collect approximately one pound of soil per analysis or screen from the mixed soil and place in a clean, one-quart glass jar sealed with a Teflon® or foil-lined lid.

v. Water Samples

For collecting samples of surface water, use the following guidelines, which are designed to detect pesticide residues resulting from the misapplication of a pesticide to surface water. If you suspect pesticide contamination of ground water, contact your supervisor to determine the appropriate local, State, or federal agency for follow-up.

Wear shoulder-length gloves and chest-high waders whenever contact is made with potentially contaminated water. Use clean, one-gallon amber glass containers with an aluminum foil or Teflon® seal under lid. Fill bottles to top leaving no air space for pesticides to volatilize. Sample as close as possible to the apparent source of contamination. Avoid areas where water has been isolated from the main body of the stream, lake, or pond.

Wade out as far as possible into the body of water. Avoid sampling water that is disturbed by your movement. If the suspected pesticide is water soluble, then draw the sample from any depth below 18 inches. If the pesticide is oil-based, or if oil is a part of the tank mix and the alleged misapplication was made across the surface, then draw the sample from the surface layer. For samples below the surface of the water, lower the glass bottle to the desired depth before removing the cap. Allow bottle to fill, then replace the foil-lined cap and lift the bottle out of the water. For surface samples, remove the cap and dip the bottle into the water surface. Allow it to fill completely, then put on the foil-lined cap. Take several samples distributed around ponds or lakes instead of only one sample. If only one sample is taken, draw several subsamples from different locations around the body of water and combine in a clean, one-gallon container. If the water is too shallow to immerse a jar, use another clean jar to fill the sample jar.

Refrigerate or place the sample on "Blue Ice" immediately. In some cases, other chemicals may be added to the water to aid in preserving the sample. Contact your EBL for instructions. Document the additives (i.e., preservatives) on the **Sample Analysis Report**.

vi. Sediment Samples

If equipment is not available to collect a sediment sample, or assistance is needed, contact your supervisor who will make the arrangements to have the appropriate agency assist or collect the samples.

Pesticide residues can accumulate in the bottom sediment of lakes and streams. There are commercially available devices for sediment sampling, but these devices often require extensive cleaning between sampling to prevent cross-contamination. Directly scooping sediment into a glass jar is recommended for shallow sampling situations.

Sediment contents can be flushed or diluted as the jar is lowered or retrieved through water exceeding a few inches in depth. Therefore, a disposable core tube is recommended for unconsolidated sediment, and use of a commercial sediment-

collection device is recommended for firm bottom deposits. It is recommended to sample with the flow for shallow-flowing streams.

Carefully lower the disposable core tube, or other sampling device, through the water and into the sediment to minimize rolling the sediment. Retrieve approximately one pint of sediment. Transfer sediment directly into a clean glass sample jar or a clean pan. Remove rocks, leaves, and other debris from sediment before transferring to the wide-mouth glass jar. Freeze sediment samples for storage.

vii. Honeybee, Animal, Bird and Fish Samples

Sample dead honeybees, animals, birds, and fish fresh before decomposition, if possible. Prior to collecting dead animals, contact a governmental veterinarian for proper dissection techniques and appropriate tissue samples. If wildlife is involved, contact a Fish and Game biologist. In some situations, a governmental veterinarian or Fish and Game biologist will collect the samples. Use disposable gloves when handling animal samples because of the possibility of disease transmission.

Collect small animals and fish whole and place in plastic bags. Collect a minimum of **250 grams (about ½ lb.)** of fresh dead bees or honey and a minimum of one ounce of pollen. Remember to collect enough for each analysis requested.

Chill all honeybee, animal, and fish samples immediately to prevent further degradation. If fish decomposition is evident upon collection, indicate so on the **Sample Analysis Report**. Freeze and ship all tissue samples as quickly as possible.

viii. Commodity Samples

Collect commodity samples to determine if pesticide residues are in excess of the EPA food tolerance. This information is sometimes used to prohibit the harvest of a field, or seize a packed commodity. Do not collect samples to “clear” a grower's field or for informational purposes for a grower.

Be careful to select individual fruits and vegetables that are without decay. If the commodity is not cut, refrigerate on blue ice before shipping. Avoid freezing because of the problems dealing with thawed and partially thawed commodities and estimating the water weight in the samples. If the commodity is cut, freezing may be necessary to preserve the sample during a lengthy storage period.

a. Field Sampling

Collect field samples that are representative of the whole commodity. Do not remove wrapper leaves, hulls, shells, pods, etc. Do not wash or clean the commodity.

If the entire field is suspected of carrying pesticide residues in excess of the tolerance, collect samples in a grid pattern in the same manner as foliage samples.

Collect at least one pound of commodity per sample, per analysis, or screen. Place the sample in a clean, unused double-strength paper bag.

b. Packed Sampling

If pesticide contamination of a packed or processed commodity is suspected, contact your EBL because DPR is the lead agency for illegal residues on produce in the channels of trade. However, there are some basic points to consider when collecting this kind of sample.

Samples collected at packing sheds should be representative of the produce as shipped in the channels of trade.

Sample size is determined by the number of containers in the lot. Use the following table as a guideline for determining a "representative" sample size:

Number of Containers in the Lot	Number of Containers to Sample From
1 – 5	All
6 – 100	5
Over 101	10

NOTE: Unless otherwise instructed, the minimum sample size should be **two** pounds.

Do not strip outer leaves before sampling commodity from bulk lots at a packing shed, unless removal of the outer leaves is the practice at the packing shed prior to shipping. Place the sample in a clean, unused double-strength paper bag.

ix. Tank Mix Samples

Laboratory analysis of tank mix samples identifies the active ingredient and any possible contaminants in the tank mixture. The Formulations Laboratory analyzes active ingredients only, not inert materials. Petroleum distillates cannot be analyzed.

Tank mixes may be highly toxic. Wear protective clothing and safety equipment when sampling. Refer to the pesticide labels for precautionary statements. Wear chemical resistant gloves, and goggles or a face shield when sampling all tank mixes.

Wear a respirator, if required by the label. If the tank mix ingredients are unknown, assume they are highly hazardous and wear maximum safety equipment. Be careful when working around machinery and at busy mixing/loading sites. Be aware of hoses and fittings that may be under pressure, or show signs of leakage.

Thoroughly agitate the liquid in the service container or tank. If the solution is adequately mixed to ensure uniformity, collect a sample from the drain system. Use a catch basin to avoid spills onto the soil. Application rigs can sometimes be sampled at the spray nozzles. After an application, loosen a nozzle and drain the pesticide mix into a glass sample jar. Be sure to tighten the nozzle after taking the sample. If the tank mix cannot be agitated, use a siphon tube and syringe to collect a composite sample from three depths: near the tank bottom, middle, and near the top of the liquid level.

Do not allow tank mix solutions to contact rubber or plastic as these materials may affect the analytical results. If the pesticide reacts with metal, use glass jars capped with Teflon® lids, not foil-lined lids. Do not fill the jar above the bottom of the thread line to avoid spillage when the sample is opened. Any contamination of the sample container should be rinsed off onto the application site. After collecting the samples, wash thoroughly with soap and water.

If possible, include a copy of the pesticide label with the sample. If the label cannot be obtained, include the ingredient statement and other pertinent label information on the **Sample Analysis Report**. The Sample Analysis Report should also include dilution and mixing directions. Write **"Formulations Laboratory only"** on the Sample Analysis Report.

Chill all tank mix samples to prevent degradation. An ice chest with "Blue Ice" will maintain the samples below 40°F. Ship by the fastest means available, taking into consideration Department of Transportation (DOT) regulations. To avoid cross contamination, **do not** store or ship tank mix samples with or near other sample types (foliage, soil, etc.).

8. Outsourced Sampling Techniques

a. Air Samples

Due to the knowledge and experience needed to operate air sampling equipment, contact your EBL for assistance in contacting an environmental or occupational health agency or DPR's Environmental Monitoring staff to conduct the sampling.

Two types of air samplers are used. High Volume samplers for measuring low concentrations of pesticides over long periods of time; and Low Volume samplers for measuring higher concentrations of pesticides over shorter periods of time. Either high or low volume samplers can be used indoors or outdoors.

- Indoor Air Sampling: Hi-Vol samplers must be vented out of the dwelling to ensure that air will not be recycled through the machine. Rooms with cigarette smoke or gas appliances must be avoided; any gases or suspended smoke particles in the area will contaminate the sample.

- Outdoor Air Sampling: Position sampling equipment to avoid exposure to engine exhausts, running motors, cigarette smoke, or any other nontarget air contaminants. Protect sampling equipment from rain and direct sprays from application machinery. Use shelter hoods to protect the equipment in such situations.

b. Feed, Milk & Dairy Foods and Egg Samples

Use the sampling protocol of the United States FDA's **Investigations Operations Manual** (see website http://www.fda.gov/ora/inspect_ref/iom/contents/ch4_toc.html) for proper sample collection of these commodities for compliance (investigational) purposes. For suspected pesticide contamination of a feed, milk or dairy product, or egg commodity, contact your supervisor to determine which appropriate State or federal agency to contact for follow-up. For milk samples, each analysis requires one quart. Contact your EBL for guidance with procedures.

c. Pesticide Formulation Samples

Sampling pesticide formulations for investigative purposes is sometimes necessary to provide evidence of a pesticide misuse, misformulation, product composition, cross-contamination, or other problem. In order for the analytical results of these samples to substantiate a finding that a violation exists, the samples must be representative of the total amount of the material sampled. Discuss with your EBL the appropriate protocol to use for the particular situation prior to taking formulation samples. Typically, DPR staff takes these types of samples.

9. Sample Preservation, Storage, and Shipping

The proper collection, storage, and shipping of samples are all critical elements of the sampling process and can affect the analysis results. Take the necessary steps early in the sampling process to avoid anything that could compromise the integrity of the sample, such as loss, contamination, or tampering. Ideally, a laboratory should analyze the samples as soon as possible after they are collected. However, in many situations, this may not be possible and consideration must then be given to assure the integrity of the sample by utilizing proper storage, preservation, and shipping methods.

a. Storage

Ensure that each container is clearly labeled to identify the sample number. All samples, except glass jars, should be placed in paper bags within a plastic bag. Glass jars shall be placed directly into an inverted poly bag. Do not store or submit samples in direct contact with plastic bags. Do not use tags for labeling purposes. Protect stored samples from tampering.

b. Preservation

If samples must be stored temporarily, immediately refrigerate them to prevent deterioration of the sample and degradation of the chemical**.** For improved preservation, the following samples may be frozen:

- Whole leaf foliage
- Surface (swab)
- Clothing
- Soil
- Sediment
- Animals, Fish, Honeybees
- Air

The following samples, however, **must not be frozen**:

- Dislodgeable foliage residue (DFR)
- Water
- Commodity
- Tank-mix
- Formulations

Refer to the "Sampling Directions" section for additional information on the storage of a particular kind of sample.

c. Shipping

Place properly bagged (plastic over paper) and labeled samples in a shipping container and immobilize the samples with suitable packing material such as crumpled newspaper or Styrofoam. Use sufficient "Blue Ice" to maintain the temperature throughout the shipping time. Mark your cooler and "Blue Ice" with your address in indelible ink and they will be returned. Record the chain of custody and include the **Sample Analysis Reports** (one per sample) in a separate plastic bag. When multiple samples are sent, include a sample site diagram, whenever possible, to assist the laboratory staff in determining the order in which to analyze the samples. Do not staple the **Sample Analysis Report** to the bag. Seal the shipping container. Pack liquid samples in sufficient absorbent material to retain any leakage that might occur. Packaging and shipping samples must be done properly to ensure that they remain **intact** when they arrive at the Chemistry Laboratory. Any mishandling of the sample can have a negative impact on the admissibility of the sample as evidence. In addition, mishandling the samples can endanger the safety of persons because of loss through spillage, leakage, or

deterioration of the samples. Clearly mark shipping container with handling instructions, such as “Handle with Care,” “Glass,” “This Side Up,” or other appropriate wording. Comply with all applicable packaging and shipping requirements of DOT. Consult your EBL about the shipping method, but generally ship by the fastest method available, preferably overnight.

Print shipping container labels for samples to be sent through the mail or by courier. Only use direct delivery courier services.

Address the labels to:

Department of Food and Agriculture
Center for Analytical Chemistry
3292 Meadowview Road
Sacramento, CA 95832

The label should also direct the shipping container to the appropriate section of the laboratory. The labels should state either:

1) ATTN: RESIDUE;
2) ATTN: FORMULATION (Only for a tank mix or formulation samples); or
3) ATTN: WORKER SAFETY (ONLY for DFR or clothing samples)

Sample shipping containers and associated “Blue Ice” will be returned to the appropriate regional office on a regular basis by mail or “pony express.”

All hand-delivered samples should arrive at the laboratory between 8:00 a.m. and 4:00 p.m. on regular workdays. The laboratory often closes for lunch during the noon hour. If the delivery person anticipates arriving between 12:00 and 1:00 p.m., please call the laboratory ahead of time to ensure that someone will be available to receive the samples. The laboratory's phone number is (916) 262-1434. The delivery person should check in at the receiving office, which is located at the south end of the main Chemistry Laboratory (3292 Meadowview Road). After the appropriate laboratory section has been notified, the delivery person will be given further instructions.

Exceptions to the 8:00 a.m. - 4:00 p.m. delivery times are when pre-arrangements have been made with the appropriate laboratory section(s) and during emergencies.

When shipping samples to the laboratory, please do not ship samples when they are likely to sit in transit over the weekend or other holiday periods.

10. Completing The Sample Analysis Report and Sample Analysis Report Evidence Record (Form PR-ENF-030)

Any sample may become evidence in an administrative or judicial action. For this reason, accurately complete the **Sample Analysis Report and Evidence Record**. Additionally, failure to complete the form may result in a delay at the Laboratory. **Always use a separate form for each sample, companion sample, control sample, or subsample submitted. Identify each sample as accurately as possible.**

a. Sample Analysis Report

1. SECTION A. Sample Analysis Requestor

Enter the name, address, and fax number of the agency submitting the sample. The form will be faxed to the number given with the analysis results.

2. SECTION B. Sample Source

Submit the name, address, Operator ID number or Restricted Materials Permit number, and telephone number.

3. SECTION C. Sample Information

Submit a separate form for each sample or subsample. The identification number on the sample must correspond to the identification number on the **Sample Analysis Report**. The Laboratory will assign its own identification numbers to each sample when it is received.

a) Sample consists of: Be specific when completing this box. If the sample is a commodity give the specific name. For example: "1 pound of tomato foliage;" or "1 pound of strawberry fruit;" or "1 pound of soil taken between 2" and 6" depths." Tank mixes. As much information as possible should be given for tank mix samples. Include the name and approximate percentages of any fertilizers, stickers, spreaders, buffers, and active ingredients in the mix.
b) Is this a control sample?
c) Is this sample a composite?
d) Sample identification marks. Make these marks logical and consecutive, especially with samples associated with the same case. One suggested sample numbering system is: investigator's initials-date (month-day-year)-sample sequence number. For example: investigator (JW) collects a sample on November 9, 2004, the sample number would be JW-110904-1. The identification marks on the sample container must correspond to the identification marks on the **Sample Analysis Report**.
e) Other identification marks.
f) Commodity and acres. Be as specific as possible when entering the name of the commodity. Add the total acres of the commodity being sampled.
g) Section, township, and range. Enter these if they are available.

h) Sample location. A brief description of where the sample was taken should be entered here. Distances from landmarks and field borders can be used. For example: “l/4 mile north of Wall Road and 1/2 mile south of Almond Street.”
i) Site ID number. Get this number from the R.M. Permit or Operator ID form.
j) County. Use the county code; e.g. 39 = San Joaquin.
k) Basis for sample. Check the appropriate box.
l) Description of problem. Note here the nature of the complaint or investigation. **Tracking numbers from DPR should be entered in this box**. For example: “Resident complaint of illness from application of Guthion to almonds.” If the sample has been assigned a tracking or case number, record it in this area.
m) Sample collector's signature.
n) Print sample collector's name here.
o) Date sample collected.

4. SECTION D. Laboratory Instructions

Report the sample priority and disposition here. Review the criteria for priority on the back of the **Sample Analysis Report** and check the appropriate box. Routine samples will be analyzed on a first-come, first-served basis, and in order or priority. Give the Laboratory instructions on what to do with portions of the sample that are not used or destroyed in the analyses by checking the appropriate sample disposition box.

5. SECTION E. Specific Analysis Requested

Under “Specific Analysis Requested,” space is given for three individual pesticides to be named, and three different screens. You will receive data from the laboratory including the amount, tolerance, minimum detectable level (MDL), and internal codes for laboratory tracking purposes.

An area in this section covers dislodgeables and swabs. Samples of spilled tank mixes or concentrates taken by the swab method will result in higher analysis results than normal. The laboratory uses different analytical methods for swabs. Always list the type of solvent used when taking a swab sample. Dislodgeable samples should be given “Priority 1” and marked “Human Health Hazard.” Include the leaf punch size (diameter) and the exact number of leaf punches in the sample.

Results for total residues will be given in Parts Per Million (PPM) unless otherwise requested.

Dislodgeable results will be reported in weight-to-surface area. Surface sample results will be reported in weight-to-sample weight ratio (μg/sample). Results for tank mixes or concentrates are given in percentages, unless otherwise requested. The Laboratory Supervisor or chemist performing the analysis will sign and date the form.

b. Sample Analysis Report Evidence Record

1. Sample Information

Print the sample collector's name and sample identification marks; the laboratory will complete the laboratory number.

2. Preservation Method During Transportation

Check the appropriate box for the method of keeping the sample from deteriorating.

3. Transportation Information

Fill out the regional office of origin, means of transportation, and destination sections. Be sure to include the date sent.

4. Signature Block

Certify the sample here.

5. Custody Record

The sample deliverer and receiver must sign the appropriate boxes in the presence of each other every time the sample changes hands. Note the date, time, and purpose of the change in custody. If the Record of Custody is incomplete, the Laboratory cannot legally verify the resulting analysis because of the unknown history of the sample.

If shipping the sample by UPS, FedEx, or USPS, indicate that the sample was delivered to the specific carrier location on the date shipped. At the hearing you may have to testify more specifically that you properly packaged and addressed it to the lab with appropriate shipping charges or postage, and how you delivered it to the carrier. The foundation for this procedure as the routine business practice can be laid at a hearing and the carrier can be portrayed as a neutral third party who is in this business and professionally transported the evidence without any motive to tamper with it. The lab can testify (perhaps by document) that they received the evidence from the carrier as a routine business practice and the package did not appear to have been tampered with. While the respondent can, and in some cases will, contest this practice and try to call the evidence into question, it will be the job of the hearing officer to consider the reasonableness of the claim. The hearings sourcebook will have further information on how to properly lay the foundation for this kind of evidence.

6. Laboratory Storage

A complete record of laboratory storage will be noted on the form by chemists.

B. Documentary Evidence Collection

1. Diagrams

Diagrams can provide graphic images of the episode location. Add your information to a copy of existing field maps as diagrams whenever possible as they can provide an accurate layout of the location and already include some of the necessary information.

Record all pertinent information on the diagram. Information to consider adding to the diagram are: the episode site; the pesticide application site; application pattern and direction; wind direction; landmarks such as buildings and roads; crops and their acreages; the location of witnesses; sample sites and numbers; site and direction of photographs. The diagrams should also provide an indication of dimensions and orientation (north is usually up).

2. Photographs

Photographs provide visual documentation of a situation or object. Photographs showing drift and crop damage are important documentation that an episode occurred. Photographs of product labels provide evidence of the product involved when a detachable label cannot be obtained. Photographs should be labeled with the date and photographer's ID. A brief description describing the photograph should be added.

3. Field Notes

Field notes have great value because they were made at the time of the inquiry. They are the basis for the investigative report. The investigative report is only as good as the field notes taken during the investigation of the episode. It is best to structure your notes in chronological order. Entries should begin by identifying the subject matter, date, time, and location of the activity. Other vital information may include the names and title of the injured person, witnesses and employer or employer representative; a description of the episode site; weather conditions; and location and type of samples collected, including the chain of custody. Organized field notes will facilitate the composition of the narrative report by the investigator.

Include all information found in your field notes in the narrative report. After you complete your investigative report, compare it to your field notes. Once your agricultural commissioner accepts the final report, you may destroy your field notes if:

1) you incorporate them in your final report,
2) destroy them in "good faith", and
3) it is consistent with county policy.

Field notes and the investigative report are generally considered public documents (see Records Requests in section IV for additional information about disclosure).

IV. THE INVESTIGATIVE REPORT

A. General Comments

The investigator must maintain an impartial position at all times. The investigative report must not reflect the attitudes or opinions of the investigator. The investigative report must include all relevant evidence. This includes information about farming practices, etc., that is generally accepted as common knowledge within the industry, but may not be known by DPR staff, hearing officers, and others who review the investigative reports. The reviewer cannot properly consider information the investigator knows, but excludes from the report. Remember, even negative findings can help direct the reviewer to form a valid conclusion and, in addition, demonstrates the thoroughness of the investigation. Omitting information from the report as unimportant can lead to the conclusion that the investigator failed to adequately investigate all aspects of the episode.

Based on the information obtained during the investigation, the investigator must only draw conclusions within his/her scope of expertise. Conclusions pertaining to violations of the laws and regulations and whether the implicated chemicals are pesticides or used as pesticides fall within the investigator's expertise. **Do not make conclusions based on medical information uncovered during the investigation.** This falls outside the scope of the investigator's expertise.

B. Report Writing:

Your report is the definitive record of an investigation. It is an orderly account of where you went, what you did and all of the information and evidence you obtained relevant to the episode. It answers the questions of who, what, when, where, why and how. Concentrate on making reports logical and accurate, so they can be complete and still concise. A well-written report gives the reader confidence in your education, experience, objectivity and professionalism, as well as reflecting positively on your department.

Write reports in the first person and active voice. Keep sentences simple and direct. Use everyday language when possible. Try to think of vivid verbs to evoke the events you describe, but beware of emotionally loaded terms that could lead people to question your objectivity. Your goal is to write reports so complete and well organized that someone could base prosecutions on them, even in your absence. Brief reports often work better than lengthy ones. It takes time and effort to condense reports to their essence, but it makes your work enormously more effective.

Include enough detail that reasonably educated people can follow your report, even if they are unfamiliar with the case, local conditions and practices, and the laws and regulations. Hearing officers, district attorneys, the respondents, and the public may all use your reports, not to mention DPR and your supervisor. Help your readers find the information they need to reach their own conclusions from the logically ordered facts in your report.

Identify all the areas of regulatory concern that you investigated. Document the evidence that supports any violations, but do not exclude information that supports the individual or

business being investigated. Remember that DPR and your supervisors use your reports to assess the need for enforcement action. If you identify any violations, the report must supply information from which to gauge the degree or severity of violation.

When referring to people in the report, use the initial of their first name followed by their last name. Type the name in capital letters. For example, John Doe, would be referred to as J. DOE. Handling names in the report this way will assist staff in removing the names to fulfill public disclosure of records requests.

C. Standard Narrative Format

To facilitate well-organized and informative investigative reports, use the following standard narrative format. Non-priority antimicrobial investigations are exempt from this format.

Summary: One paragraph summarizing the episode.

Background Information: Pertinent background information related to the episode.

Violations: List all violations of the laws, regulations and labeling found during the investigation, including violations that did not contribute directly to the episode.

Witnesses: List of all witnesses involved in the episode. For each person, list his/her name, employer (if applicable), address and telephone number.

Investigation and Statements: The narrative portion of the investigation report detailing how the episode occurred. Witness interview statements/summaries are included in this section. For each interview, state the date and time of the interview, who conducted the interview, how the investigator conducted the interview (i.e. in-person, over the telephone), where the investigator conducted the interview, the translator (if applicable) and if anyone else was present during the interview.

Findings: Summarize the investigative findings supported by the evidence. Provide summary information identifying and supporting the elements of any violations found during the investigation.

Attachments: List of supporting evidence for the episode investigation.

D. Investigation Report Forms - Overview

For all pesticide episode investigations, the PEIR form (PR-ENF-127) must be completed. Form PR-ENF-182 may be substituted for pesticide episode investigations involving antimicrobials.

Use the following guidelines to complete the PEIR form series (PR-ENF-127, PR-ENF-127 A through D, PR-ENF-182). Use the face sheet (PR-ENF-127; PR-ENF-182 for antimicrobial incidents) for all investigations. Complete the face sheet as fully as possible. Begin the summary of the investigation on the face sheet. State "refer to narrative" or "see attached" only to indicate continuation if sufficient space is not available on the face sheet. It is not necessary to repeat information in the narrative that is clearly stated on the face sheet. If you need more space or to update information at a later time, use the Supplemental Report form (PR-ENF-127A). Typed narrative reports may be substituted for the supplemental form.

When an episode involves several people as witnesses, complainants or injured, use the Episode Witness/Injured/Complainant Report form (PR-ENF-127B) to record specific personal data and avoid the need to prepare several similar narrative reports. The investigator may find this particularly useful for human cluster illness episodes.

A map or sketch contributes greatly to a reader's understanding of the investigative report, particularly to show damage patterns or sampling locations. Use the Episode Site Diagram form (PR-ENF-127C) for this purpose. Existing farm maps may be substituted, when appropriate.

Agricultural field worker dermatitis injuries require the investigator to gather certain specific information relevant to the situation. Use the Field Worker Dermatitis Supplemental Report form (PR-ENF-127D) to provide this data. The simple check box format helps avoid the need for long narrative reports.

Report episodes involving exposure to antimicrobial (disinfectant, sanitizer, etc.) pesticides on the Antimicrobial Exposure Episode Report form (PR-ENF-182) as an alternative to using the face sheet (PR-ENF-127). DPR designed this form for the collection of information pertinent to a worker safety evaluation. The simple check-box format aids the investigator in collecting necessary information. It is not necessary to complete and submit both forms.

The following table lists the forms and their use for episode investigation reports.

Form #	Title	Use
PR-ENF-127	Pesticide Episode Investigation Report (PEIR)	Required for all investigative reports. PR-ENF-182 may be substituted for investigations involving antimicrobial pesticides.
PR-ENF-127A	Pesticide Episode Investigation Supplemental Report	Narrative report. Typed reports may be submitted on regular copy paper.
PR-ENF-127B	Episode Witness/Injured/ Complainant Report	Reporting of additional persons involved (exposed, witnesses or complainants).
PR-ENF-127C	Episode Site Diagram	Detailed diagram of incident area. Existing permit maps may be substituted, when appropriate.
PR-ENF-127D	Field Worker Dermatitis Supplemental Report	Provides specific information relevant to field worker dermatitis episodes.
PR-ENF-182	Antimicrobial Exposure Episode Report	Alternative form that may be used for investigations alleging to involve antimicrobial pesticides.

E. Investigation Report Forms: Completing the Forms

1. Pesticide Episode Investigation Report (PR-ENF-127)

The following guides the investigator in completing the face sheet of the Pesticide Episode Investigation Report form (PR-ENF-127).

General Information:

Page: The face sheet is the first page of all reports, except when using the Antimicrobial Exposure Episode Report form. Use the space to indicate the total number of pages in the report excluding appended records or other supporting evidence.

Received By: State the name of the person within the investigating agency who first received notification about the episode. Do not use this line to record internal agency assignment of investigative duties. The purpose of this information is to document the official notification of the occurrence of the episode and the beginning of the investigation.

Received From: Record the name of the person who provided the first notification of the episode to the investigating agency.

Representing: Record the agency, firm, or organization of person giving the notification.

Date/Time Received: Record the date and time of notification.

Type of Episode: Check the appropriate box(es) that apply. The types of episodes are defined on page 2. If human effects, indicate the number of people involved. If property loss/damage, indicate the estimated value. If a Report of Loss was filed, use the reported value estimate. Identify the source of the value estimate in the narrative, if not otherwise

identified. If an environmental effect, identify the type of effect. If none of the above, check other and explain.

Priority Investigation: If the investigation involves a priority episode, check yes and record the priority number assigned by DPR. Otherwise, check no.

Other I.D. No.: An optional box the CAC may use for a separate CAC tracking number or for an identifying number assigned by another governmental agency. There are separate boxes for the WH&S case number and priority episode number.

County of Occurrence: Write the name of the county where the episode occurred. Do not substitute the designated county number.

Date/Time of Occurrence: Record the date and time the episode occurred. The date must reflect the actual date of occurrence, which may differ from the date listed on the PIR/DFROII.

Episode Location: Clearly and concisely state where the episode occurred (i.e. street address, field identification number).

Person Notified/Date: For each of the listed agencies, identify anyone notified of the episode. Record the date of notification.

Injured/Complainant Information:

Complaint Signed: Indicate "yes" if the complainant filed a Report of Loss, Nonperformance or Damage form (PR-ENF-008), Report of Human Exposure or Unsafe Condition form (PR-ENF-074) or a signed written statement, otherwise check "no" or "N/A" as appropriate.

Doctor Visited: Check "yes" or "no" to indicate whether the injured person or complainant sought medical attention following the alleged exposure. Check "N/A" if the incident does not involve a human effects episode.

Extent of Injury/Illness: This box is applicable only to *human effects episodes*. Check the appropriate box to indicate the effects. Check one of the following: "fatal" if the person died; "serious" if the person required hospital admission as “inpatient status”; "symptoms" if the person had any signs or symptoms that were less than "serious"; or "exposed only" if the person experienced no signs or symptoms of illness or injury.

Activity of Person Exposed/Involved: Indicate the individual's specific activity when the exposure occurred. This may be different from occupation. Check "mixer/loader" if the exposure occurred as the individual prepared a pesticide for application. Check "applicator" if the exposure occurred as the individual applied a pesticide (including antimicrobial pesticides) by any method to an intended target. This includes field workers applying pesticides in irrigation water (chemigation). If an individual becomes ill after mixing, loading and applying a pesticide and cannot identify an exposure event, check both activities. Check "field worker" if the exposure occurred while an individual worked in an agricultural field and not during the pesticide handling process. Check "public" if the exposure occurred while the individual was not working. Check "other" if exposure

occurred in an occupational setting other than those named above. Specify the individual's activity in the "explain" space if "field worker", "public" or "other" is checked.

Name, Address, Age, Gender (Sex), And Phone: Complete the personal identification information about the injured/complainant.

WHS No.: Enter the assigned WHS number (i.e. 200X-XXX). WH&S assigns each individual a separate case number. For episodes identified by alternate means, there may be no WHS number. In this case, leave the WHS number blank.

Workdays Lost: Indicate the number of days the injured/complainant remained off work (or other accustomed activity, such as school attendance) due to the effects of the alleged exposure. Do not count the day the person was first injured and/or sought medical attention. If disability status is ongoing, indicate "indefinite" in the box and explain in the narrative. If available information does not specify whether or not the affected person experienced a period of disability, enter "unknown".

Medical Facility Name: Record the name of the medical facility (hospital, clinic, etc.) where the person sought medical attention.

Treatment/Observation: Check "treatment provided" if the individual received treatment by a physician or medical facility. Check "observation only" if medical personnel evaluated the individual, but provided no treatment.

Hospitalized: Record formal admission to the hospital (inpatient status). Do not count emergency room visits as time hospitalized.

Date and Time Admitted/Discharged: Record the day and time of both hospital admission and discharge. If the doctor admits the individual directly from the emergency room, count the time spent in the emergency room as hospitalization.

Physician, Address, Phone: Complete the information about the principal attending physician.

Signs/Symptoms: List the effects attributed to the exposure by the injured person and/or the physician. Acquire the information by interviewing the injured person, when possible. The information provided on the PIR/DFROII may be incomplete or inaccurate.

Employer, Address, Phone: Record the information about the injured person's employer at the time of the exposure. If self-employed, state "self-employed" in this space.

Protective Measures (Engineering Controls and Personal Protective Equipment) Used: **This section is very important in determining the cause of the illness/injury and how it may have been prevented.** Check the boxes that most accurately describe the protective measures **actually in use** by the injured/complainant at the time of the alleged exposure. If the protection used is not listed, check "Other" and explain in the space provided. If no protective measures were used, check "none". **Fill out this section even if the individual handled no pesticides.** Additional information is listed below for some of the check boxes:

Safety glasses: Safety glasses as specified in Title 3 CCR section 6738(b)(2)(A).

Work Clothes: Employee-provided garments meeting specifications listed in Title 3 CCR section 6000, Work Clothing definition.

Coveralls: Employer-provided garment meeting specifications listed in Title 3 CCR section 6000, Coverall definition. Specify the type of coverall (i.e. cloth, disposable) worn.

Chemical-Resistant Clothes: Employer-provided clothing made of specific materials that meet the specifications listed in Title 3 CCR section 6000,Chemical Resistant or Waterproof definition.

Other: Check this box when the type of clothing/equipment matches no existing protective measures category. Do not check "Other" and enter "None" for "Other Protective Measures unless the individual wore no clothes. For an individual wearing ordinary street clothes, check "Work Clothes".

Closed System: A procedure for handling pesticides that avoids hand-pouring and meets the specifications listed in Title 3 CCR section 6000, Closed System definition.

Enclosed Cab: A chemical-resistant barrier meeting the specifications listed in Title 3 CCR section 6000, Enclosed Cab definition.

Enclosed Cab with Air Purification: An enclosed cab that meets the specifications listed in Title 3 CCR section 6000, Enclosed cab acceptable for respiratory protection definition. Enclosed cabs certified by the manufacturer as meeting American Society of Agricultural Engineers Standard S-525 (Rev. 5/98) are acceptable under this definition.

Environmental or Property Damage:

Description of Damage: Describe the damage and nature of the effects.

Amount/Value: Record the amount or value as estimated by the complainant or the investigator. This value may be stated in terms of acres, tons, trees, or dollar amounts. Identify the source of the estimate in the narrative.

Owner, Address, Phone: Record the information of the property owner. For leased fields, list the lessee. If the owner is listed as the injured or complainant, state "same as above".

Alleged Respondents:

Status: If you suspect a person or company (PCA, dealer, etc.) of being responsible for the episode, check their status. If "other" is checked, explain in the space provided at the bottom of the Alleged Respondents section.

Name, Address, And Phone: Complete with the information known about the person or firm suspected of being responsible for the episode. If a licensee, record the name as it appears on the license.

License/Permit No.: If the person or firm holds a license or permit, record the type and number. If more than one, record the type most directly related to activities that allegedly contributed to the episode.

Recommendation Made: Indicate if a Licensed Pest Control Advisor (PCA) made a recommendation for the application. If a PCA made the recommendation, record the number in the space provided.

Employer's Name, Address: Record the name and address of the respondent's employer. If self-employed, state "self-employed". For non-occupational cases, put "N/A".

Pesticide Information:

Pesticide Name/Manufacturer: Record the full name of the pesticide product (i.e. Roundup Pro Herbicide, not Roundup) and the manufacturer. Record this information for all pesticides (including adjuvants) as well as any fertilizers or other components in the tank mix. For cases involving residue, list all materials applied to the field(s) of interest for the previous 30 days. List the pesticides from the most recent application in the provided space and identify the balance in the narrative. For cases involving non-pesticidal chemicals, list the product name and manufacturer in the provided space. For episodes involving no chemicals, put "N/A".

EPA Registration Number: Enter the EPA registration number from the pesticide product label, including the subregistrant number if applicable. Since most product labels do not include California's alpha code, obtain the code from the Registration Branch or from the DPR label database.

Category: Enter the toxicity category of the pesticide product as indicated by the signal word on the label.

Dose/Dilution/Volume: Enter the amount of pesticide product, diluent and mixture applied per unit (for example: 2 lb. product/100 gallons water/acre).

Treatment Date: Record the date of application or use.

Commodity/Site Treated: Record the crop, site or item treated.

Equipment Type/Make/Model/Description: Identify the specific type(s) of application equipment used in the episode. For episodes where more than one pesticide application may have contributed, list the specific type of equipment for each application. Examples of equipment include helicopter, air blast sprayer, boom sprayer, backpack sprayer and hand pump sprayer. Be sure to include any identification number used by the firm. Describe the location and configuration of the nozzles. Record the use of electrostatic equipment or other technologies.

Episode Narrative:
Use the Standard Narrative Format listed in Section III B.

Signatures:
Report Prepared By: The investigator should sign and date the report when it is completed.

Report Reviewed/Approved By: The CAC supervisor or deputy commissioner who reviews the report should also sign and date the report. While review is not mandatory, the signature of a supervisor or deputy commissioner suggests the CAC utilizes a review process to maintain quality control over the investigative reports.

2. Pesticide Episode Investigation Supplemental Report (PR-ENF-127A)

The following is a guide for completing the Pesticide Episode Investigation Supplemental Report form (PR-ENF-127A). Use this report form for the standard narrative report format. Typed narrative reports may be substituted for this form.

Page: Indicate where in the sequence of the report this sheet is located (i.e. page 7 of 15).

Location/Subject: Use a title or statement to identify the episode to which this relates (such as name of injured/complainant or nature of effects).

Priority/WHS No.: If the episode is a priority investigation, record the assigned priority number in this box. If the episode is not a priority investigation and involves human exposure, record the WHS number(s) in this box (if one has been assigned).

Other I.D. No., County of Occurrence & Date of Occurrence: See instructions for PR-ENF-127.

Narrative Continuation/Supplemental Report: Check the "narrative continuation" box if the form is used with the face sheet. If the form is used to amend a report or add additional information to a previous report, check "supplemental" report. If neither of these entries apply, check "other" and explain.

Remarks: See “Standard Narrative Format” under Part V to facilitate well-organized and informative investigative reports. Within the narrative report, include all available information obtained during the investigation (see Part IV for information to include). Remember, even negative findings have a bearing on the case. In addition, negative

findings demonstrate a thorough investigation. Lack of this kind of information implies that the investigator failed to examine aspects of the episode not covered in the written report.

Report Prepared By & Report Reviewed/Approved By: See instructions for PR-ENF-127.

3. Episode Witness/Injured/Complainant Report (PR-ENF-127B)

Use the following as a guide when completing the Episode Witness/Injured/Complainant supplement (PR-ENF-127B) of the Pesticide Episode Investigation Report. Use this report form to record information about other people involved in the episode.

A face sheet (PR-ENF-127) must be submitted with the report even when using this form.

The Witness/Injured/Complainant section must be completed for each injured person. For the first person identified, complete this information on the face sheet. All other people should be put on the Episode/Witness/Injured/Complaint form (PR-ENF-127B). DPR will return Pesticide Episode Investigation Reports submitted without this section completed for those injured.

Page: Indicate where in the sequence of the report this sheet is located.

For all other sections of this form, refer to the corresponding instructions for PR-ENF-127.

4. Episode Site Diagram (PR-ENF-127C)

Use the following information as a guide when completing the Episode Site Diagram supplement (PR-ENF-127C) of the Pesticide Episode Investigation Report.

Page, Location/Subject, Priority/WHS No., Other I.D. No., County of Occurrence & Date of Occurrence: See instructions for PR-ENF-127A.

Site Diagram: Draw or sketch a clear diagram or map of the area that shows all pertinent information. Be sure to indicate the direction and all pertinent landmarks. For episodes occurring on farms, field maps showing the fields can be substituted.

Legend and Comments: Include any information that will make the map readable.

Report Prepared By & Report Reviewed/Approved By: See instructions for PR-ENF-127.

5. Field Worker Dermatitis Supplemental Report (PR-ENF-127D)

The following is a guide for completing the Field Worker Dermatitis supplement (PR-ENF-127D) of the Pesticide Episode Investigation Report. Use this form only for agricultural field worker (not mixer/loader, applicator) dermatitis cases. A separate form should be completed for each injured employee. The Pesticide Episode Investigation Report must still be filled out for cases requiring this form.

Page, WHS No., Other I.D. No., County of Occurrence & Date of Occurrence: See Instructions for PR-ENF-127a.

Person Providing Information:

Person Contacted: Check appropriate boxes for all person(s) contacted during the investigation.

Translation: Does the contacted person(s) speak English? If not, who served as the translator?

Commodity and Work Activity Information:

Date of onset: Can the person recall when the dermatitis was first noticed? If so, please record the date in the space provided.

Record the commodity and site worked on the date of onset. Also record the site I.D. number, the block I.D. and the variety.

Field Condition: Check any of the field conditions the worker remembers, even if the exact location cannot be identified. When checking the 'other' box, please specify the field condition.

Specific Work Activity: Check the **specific** work activity of the worker when he/she first noticed the rash. When checking the "Other" box, please specify the type of work activity.

Application History:

Application History for Field of Onset: List all pesticides (including adjuvants) applied to the field within the previous 30 days. If no pesticide applications occurred within the previous 30-day period, list the most recent application made to the field in question.

Application History Supplied By: Record the name and title of the person who provided the information for the application history.

Time Before Entry: Record the actual number of days between the last application and entry by the injured person. This may have no relationship to the legal reentry interval.

Exposure Information and Medical History:
Dermatitis Symptoms Experienced: Check all boxes that apply to indicate the nature of the dermatitis. When checking the 'other' box, please specify the type of dermatitis symptom.

Location(s) on the Body: Check all boxes that apply to indicate the areas of the body affected. When checking the 'other' box, please specify the body part involved.

Previous Medical History: Indicate if the employee recalls having a previous history of any of the conditions listed.

Protective Clothing Worn: Check the appropriate box to indicate what the employee remembers wearing to work at the onset of the dermatitis. When checking the 'other' box, specify the type of clothing worn.

Comments: Record any information specific to the injured person that will assist in determining how exposure occurred and the extent of exposure.

Report Prepared By & Report Reviewed/Approved By: See Instructions for PR-ENF-127.

6. Antimicrobial Exposure Episode Report (PR-ENF-182)

Use the following as a guide when completing the Antimicrobial Exposure Episode Report form (PR-ENF-182). The use of this form is **optional**. It may be used instead of the face sheet (PR-ENF-127), but **only** for episodes involving antimicrobial (disinfectants, sanitizers, etc.) products. If an exposure episode involves more than one person the investigator should either: (1) complete a separate form PR-ENF-182 for each person exposed; or (2) if the exposure information is the same for all people involved, form PR-ENF-127B may be used to record specific personal information.

Page: Indicate where in the sequence of the report this sheet is located, usually first as the alternative face sheet. Indicate the total number of pages in the report, excluding appended records and supporting evidence.

Priority/WHS No.: See Instructions for PR-ENF-127A.

Other I.D. No., County of Occurrence, Date of Occurrence, Name, Age, Gender (Sex), Days in Hospital, Workdays Lost: See Instructions for PR-ENF-127.

Employer Name, Address, Type of Business: Record all known information about the injured's employer at the time of exposure (e.g. restaurant, hospital, etc.). If self-employed, state 'self-employed in the employer name box.

Specific Work Activity at Time of Exposure: Record the specific activity of the injured at the time of exposure (e.g., cleaning tables, mopping floors, mixing the disinfectant, etc.).

Site/Area Treated: Record the site/area (or intended site/area) treated with the antimicrobial pesticide.

Signs or Symptoms Experienced: List the effects attributed to the exposure by the injured and/or physician. Do not assume the PIR/DFROII is accurate or complete.

Protective Measures Used at Time of Incident: Check the boxes that most accurately describe the protective measures **actually in use** by the injured at the time of the alleged exposure. A box in each section (eye protection, hand/arm protection, and other protective equipment) should be checked, even if no protective measures were in use. If the protection used is not listed, check other and explain in the space provided. If no protective equipment is used, check none. See PR-ENF-127 for additional information.

Pesticide Name/Manufacturer, EPA Registration Number, Category, Dose/Dilution/Volume, and Treatment Date: See Instructions for PR-ENF-127.

Summary of Exposure Episode: See Instructions for PR-ENF-127. The standardized format is not required for non-priority antimicrobial investigations, but is required for priority episodes involving antimicrobial products.

Report Prepared By & Report Reviewed/Approved By: See Instructions for PR-ENF-127.

V. DISPOSITION OF THE EPISODE

A. Priority Episode Investigations

For all types of priority episode investigations, forward the investigator's report along with all supporting documents (i.e., results from analyses of samples collected, sales invoices, written recommendations, copies of only the pertinent pages of the labels, photographs or sketches, medical records, coroner's report, use permits, notices of intent, training records, etc.) to the appropriate EB regional office. The EBL will forward the completed investigative report to EB headquarters in Sacramento and to WH&S. DPR sends a summary report to US EPA on each priority episode investigation. The CAC will receive a copy of this summary report.

B. Human Effects Episodes

Forward all non-priority human illness investigations directly to WH&S for review and evaluation.

C. Employee/Citizen Complaints

The complainant has the right to receive a written report of the investigator's findings. Inform the complainant of any actions taken relative to the complaint and the reasons for such action (*Labor Code section 6309*). This report should be specific and normally in the form of a letter to the complainant. If DIR referred the complaint to the CAC, send a copy of the investigator's findings to DIR.

D. Illegal Residue

Forward all reports of illegal residue cases (NTE and over tolerance) referred by DPR for follow-up to the appropriate EB regional office.

E. Environmental Effects, Property Loss or Damage

Maintain all non-priority episode investigation reports concerning property loss, animal (domestic and wild), fish or bird poisonings, or other environmental effects at the CAC office.

F. Records Requests

General

There are two principle California laws governing the handling of government held records. These laws are the Public Records Act (PRA) (*Government Code 6250, et seq.*) and the Information Practices Act (IPA) (*Civil Code 1798, et seq.*). In addition, Proposition 59, passed in 2004, makes the public's right to records a constitutional right and requires that statutes be broadly construed if they further the public's access to records and narrowly construed if they limit that right.

It should be presumed initially that all records, regardless of physical form or characteristics, including electronic records, held by DPR and CACs are public. Computer software programs

are not considered to be records as defined by the act. Some, such as medical information and personnel information, are normally precluded from disclosure (release) to protect the privacy of individuals. In addition, information collected under assurance of confidentiality (confidential business information or trade secrets) may be protected from disclosure as well. Other records, such as investigation files and some predecisional documents, are permitted to be held in confidence to facilitate efficient operation of the agency. Records may not be withheld from disclosure simply to protect the image or avoid embarrassment of the agency.

Government Code section 6255, requires agencies to justify withholding any record by showing the record in question is exempt, or by making a determination that the facts of the particular case show the public interest served by not disclosing the record clearly outweighs the public interest served by disclosure of the record. When the PRA request is in writing and the agency decides to deny the request, in whole or in part, the agency must respond to the requestor in writing within 10 days. Appendix H is a sample letter that may be used for withholding a specific document. This sample letter is not appropriate for responding to compulsory legal processes as described below. We recommend that you seek case specific legal advice from your county counsel in these cases.

Any person who wishes to inspect a public record or obtain a copy of a public record must identify the record(s) specifically enough so it can be located. You may want to assist the requestor in limiting their request to focus on the records actually wanted. It is not appropriate to ask a requestor about the reason why they want the requested document. The purpose for the request has no bearing on whether the document can be released pursuant to the PRA. The PRA requires the requestor to identify the time frame for which records are sought. You might also ask the requestor for such things as the particular chemical, a specific incident or incidents pertaining to a particular person or firm. You may require the requestor to send a copy service to make copies if it is a large request that would be a burden for the agency to fulfill.

Principle laws

The PRA covers how State and local government agencies maintain and disclose records. It encourages disclosure, although it contains approximately 30 specific exemptions. It is modeled after the Federal Freedom of Information Act. The agency must determine within 10 days of receipt of the request whether to comply with the request and must "immediately" notify the requestor of that determination. Some photocopy costs are reimbursable, e.g. ten cents per page. "Time" costs are not recoverable.

The PRA applies only to records that exist at the time the request is made. It does not require that the agency "create" any records and the agency is not required to provide, on an ongoing basis, documents that come into existence in the future. The agency may recover the actual costs of services needed to create "custom records" if it chooses to do so.

The IPA covers how State agencies maintain and disclose records. It is designed to place constraints on how State agencies collect, maintain, and disseminate personal information (as defined by the Act) about individuals. It applies to written records in any form and has approximately 25 conditions of disclosure. An agency must meet one of those conditions before disclosing any personal information covered by the act. It is patterned after the Federal Privacy Act. CACs, as local governmental agencies, are not subject to the provisions of the IPA but are encouraged to comply with its intent.

Compulsory Legal Processes

Compulsory legal processes may include, court orders, subpoena for production of records, and the demands for inspection of records related to a lawsuit involving the agency. The PRA and IPA may not be applicable to these processes. The time frame for compliance may be short. An affidavit from the record preparer or "custodian of the records" may be required. This affidavit takes time to prepare, so when it is required, the turnaround time for actual collection of records may be extremely short. Draft documents and documents containing personal information can be demanded. An order may compel the agency to create documents and assemble information. Some costs may be reimbursable. You should follow both the letter and spirit of the order and may want to seek the advice of your county counsel.

Generally, release pursuant to a compulsory legal process is not considered "disclosure" and the document retains any protected status it may have had. This is important since normally any disclosure of a record constitutes a waiver of its protected status under the PRA. Disclosure of protected information by the CAC to the respondent as evidence in an ACP proceeding is a disclosure made through a legal proceeding and is required by law, therefore, the record retains its protected status and the CAC may refuse to disclose it in the future.

Specific DPR Records Policies

Specific DPR policies relating to records availability for inspection, or copying if requested, follow. These policies reflect certain restrictions necessary to comply with the IPA or an exemption under the PRA. They are presented here for consideration by CACs.

Doctor's First Reports (of pesticide-related conditions)

When a request is for a report pertaining to a particular person (or regarding a pesticide episode involving so few persons that their identities are known or easily could be ascertained) and the requester is a member of the public, DPR will release only the name of the exposed person and the name, address, and phone number of the exposed person's physician.

Personal information that identifies or describes the exposed person cannot be disclosed by DPR (i.e., the exposed person's physical description, social security number, home address, home telephone number, medical information or diagnosis, and statements made by or attributed to that person) (*Civil Code section 1798.24*).

If the requester is a member of the public who has obtained signed written consent from the exposed person, DPR will release only the personal information authorized by the written consent. The written consent must have been obtained not more than 30 days before the request, or within the time limit agreed to by the exposed person in the written consent (*Civil Code section 1798.24(b)*). If the requester is the person to whom the record pertains, or is that person's representative, such as an attorney, and DPR has received sufficient proof of identity, DPR will release the entire record.

Investigation Records

Generally, DPR will not release to the public files on pending investigations. It is a privilege of the agency to hold these records and usually there is no violation if they are released. These records may be released in specific cases where the public interest served by the release clearly outweighs the value to the operation of the agency in retaining it confidential. In addition, documents that find their way into the file that are otherwise public documents, should be released upon request (notices of violation, permits, fumigation summaries, fire department incident reports, etc.). However, with certain statutory exceptions, if any document is released to one person, it must be released to any requestor (*Government Code sections 6254(f) and 6254.5*).

The right not to disclose certain items in the investigation files may continue even after the investigation is completed. There are portions of the file that must be protected, for example medical information or other information the disclosure of which would constitute an invasion of privacy and the identity of confidential informants. Staff analysis of the evidence and recommendations for action may also be withheld based on the deliberative process privilege. Communication between department attorneys concerning the evidence or the case is also protected. Once again, any document that is normally a public document cannot be withheld just because it has been made part of the investigative file. However, unless DPR can identify a public benefit to non-disclosure that outweighs the benefit to disclosure, factually information contained in the file after the file has been closed and an action taken, should be disclosed.

When the request is for records that involve many persons and the requester has not named the persons, or does not know the identities of the persons (i.e., a request for all pesticide episode investigation reports for a certain time period), the personal information regarding the persons to whom the medical information pertains (i.e., person's name, social security number, physical description, home address, and telephone number), other than the medical information itself, will be deleted before the records are released. Medical information may be released on the basis there is no invasion of personal privacy because the information disclosed is not linked to the person to whom it pertains (*Government Code section 6254(c); Civil Code section 1798.24*).

Complaints

It is DPR's position that under the balancing test required by the catchall exemption of the PRA, the public interest served by keeping the identity of a complainant from disclosure far outweighs the public's interest in disclosure. This position is supported by case law in California (City of San Jose v. The Superior Court (1999), 74 Cal. App. 4th 1008). The rationale used to protect the complainants in each of these cases is clearly applicable to the pesticide setting. The identity of a person making a formal complaint is required to be protected unless the complainant specifically requests that it be released (*Labor Code section 6309*).

Case law in California protects the name, address, and statements of a confidential informant (*Government Code section 6255*). There are several simple procedures that may be followed to protect the confidentially of an individual who requests it or when it is otherwise required:

- Avoid including the name of the complainant in any investigative report.
- If reference to the complainant is necessary to the narrative, simply state "a complaint was received."
- The statements of the complainant can be included in the report without referencing the fact that he/she was the initial complainant.
- If the issue comes to a hearing and the case can be made against the respondent without the testimony of the complainant, there is no need to release any information concerning the complaint or the identity of the complainant to the respondent as part of the proceeding.

Confidential Records

The following documents are protected from disclosure and are not open to inspection by the public:

- Personnel files. Their disclosure may constitute an unwarranted invasion of personal privacy (*Government Code section 6254(c)*).
- Records of complaints. The name, address, and statements of a confidential informant is protected (*Government Code section 6254(f)*). See Complaints above for more information.
- Preliminary drafts, notes, or interagency or intra agency memos which are not retained in the ordinary course of business, provided the public interest in withholding the records clearly outweighs the public interest in disclosure (*Government Code section 6254(a)*). If these records are retained, they are presumed to be "retained in the ordinary course of business," and are not protected from disclosure.
- Data designated as a trade secret pursuant to Government Code sections 6254.2 (related to pesticide safety and efficacy data) and 6254.7(related to air pollution control data). DPR's legal staff will make the determination as to whether a particular document is a trade secret. This issue comes up mainly with registration data.
- Information acquired in confidence where the public interest served by not making the record public clearly outweighs the public interest in disclosure (*Evidence Code section 1040(b)(2)* and *Government Code sections 6254 (f) and 6255*). DPR's legal staff will make the determination in these cases.

NOTE: Records that are protected from public disclosure may be released to other State agencies that agree to treat the material as confidential without losing their protected status.

Each CAC should develop a procedure for handling requests for release of records and have it reviewed by your county counsel. DPR is not is a position to provide case specific legal advice to counties on this issue and only offers the previous information as an example of how DPR handles requests for certain records.

VI. APPENDICES

A. Acronym Index

B. Division of Workers' Compensation – District Offices

C. Division of Labor Standards Enforcement - District Offices

D. Department of Fish and Game Regional Office Map

E. Interview Questions for Exposures and Illnesses

1. Questions in English
   a. Pesticide Handler – Employee
   b. Pesticide Handler – Employer
   c. Field Worker Exposed to Pesticide (Drift or Residue)
   d. Private Citizen Exposed to Pesticide Drift
   e. Private Citizen Exposed to Pesticide Residue

2. Questions in Spanish
   a. Manipulador de Pesticidas - Empleado
   b. Manipulador de Pesticidas - Empleador
   c. Trabajador del Campo Expuesto a Deriva o Resíduo de Pesticida
   d. Público Expuesto a Deriva de Pesticida
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F. Public Exposure Episodes Involving Large Numbers of People: Response Packet

1. Pesticide Exposure Incident Questionnaire
2. Pesticide Episode Investigation Non-Occupational Exposure Supplement (PR-ENF-128)

G. Investigations on Federal Facilities

H. Sample Letter About Withholding Specific Documents

Appendix A

Acronym Index

Acronym	Name
CAC	County Agricultural Commissioner
CACASA	County Agricultural Commissioners and Sealers Association
Cal/OSHA	California Occupational Health and Safety Administration
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
DFG	Department of Fish and Game
DFR	Dislodgeable foliar residue
DFROII	Doctor's First Report of Occupational Illness and Injury
DIR	Department of Industrial Relations
DPR	Department of Pesticide Regulation
EB	Enforcement Branch
EBL	Enforcement Branch Liaison
FAC	Food and Agricultural Code
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
IPA	Information Practices Act
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
NTE	No Tolerance Established
PEIR	Pesticide Episode Investigation Report
PENR	Pesticide Episode Notification Record
PIR	Pesticide Illness Report
PPE	Personal protective equipment
PRA	Public Records Act
REI	Restricted entry interval
US EPA	United States Environmental Protection Agency
WH&S/WHS	Worker Health and Safety Branch

Appendix B

Department of Industrial Relations, Division of Workers' Compensation (DWC)
Information & Assistance Unit – District Offices

Anaheim, 92801 1661 No. Raymond Avenue, Suite 200 (714) 738-4038	**Bakersfield, 93301** 1800 30th Street, Suite 100 (661) 395-2514	**Eureka, 95501-0421** 100 "H" Street, Room 201 (707) 441-5723
Fresno, 93721-2280 2550 Mariposa Street, Room 2035 (559) 445-5355	**Grover Beach, 93433-2261** 1562 Grand Avenue (805) 481-3296	**Goleta, 93117** 6755 Hollister Avenue (805) 968-4158
Long Beach, 90802-4460 300 Oceangate Street, 3rd Floor (562) 590-5240	**Los Angeles, 90013** 320 West 4th Street, 9th Floor (213) 576-7389	**Oakland, 94612** 1515 Clay Street, 6th Floor (510) 622-2861
Oxnard, 93030 2220 East Gonzales Road, Suite 100 (805) 485-3528	**Pomona, 91768** 435 West. Mission Blvd. # 300 (909) 623-8568	**Redding, 96001-2796** 2115 Akard, Room 21 (530) 225-2047
Riverside, 92501 3737 Main Street, Room 300 (909) 782-4347	**Sacramento, 95825** 2424 Arden Way, Suite 230 (916) 263-2741	**Salinas, 93906-3487** 1880 North Main Street, Suite 100 (831) 443-3058
San Bernardino, 92401 464 West Fourth Street, Suite 239 (909) 383-4522	**San Diego, 92102-4402** 7575 Metropolitan Road, Suite 202 (619) 767-2082	**San Francisco, 94102** 455 Golden Gate Avenue, 2nd Floor (415) 703-5020
San Jose, 95113 100 Paseo de San Antonio, Room 240 (408) 277-1292	**Santa Ana, 92701-4701** 28 Civic Center Plaza, Room 451 (714) 558-4597	**Santa Monica, 90405** 2701 Ocean Park Blvd, Suite 222 (310) 452-1188
Santa Rosa, 95404 50 "D" Street, Room 430 (707) 576-2452	**Stockton, 95202-2314** 31 East Channel Street, Room 450 (209) 948-7980	**Van Nuys, 91401-3373** 6150 Van Nuys Blvd, Room 105 (818) 901-5367
Walnut Creek, 94598 175 Lennon Lane, Room 200 (925) 977-8343		

Source: http://www.dir.ca.gov/dwc/IandA.html

Appendix C

Division of Labor Standards Enforcement – District Offices

Bakersfield 5555 California Avenue, Suite 200 Bakersfield, CA 93309 (661) 395-2710	**Redding** 2115 Civic Center Drive, Room 17 Redding, CA 96001 (530) 225-2655	**San Jose** 100 Paseo de San Antonio, Room 120 San Jose, CA 95113 (408) 277-1266
Eureka 619 Second Street, Room 109 Eureka, CA 95501 (707) 445-6613	**Sacramento** 2031 Howe Avenue, Suite 100 Sacramento, CA 95825 (916) 263-1811	**Santa Ana** 28 Civic Center Plaza, Room 625 Santa Ana, CA 92701 (714) 558-4910
Fresno 770 E. Shaw Avenue, Room 315 Fresno, CA 93710 (559) 244-5340	**Salinas** 1870 N. Main St., Suite 150 Salinas, CA 93906 (831) 443-3041	**Santa Barbara** 411 E. Canon Perdido, Room 3 Santa Barbara, CA 93101 (805) 568-1222
Long Beach 300 Oceangate, Suite 302 Long Beach, CA 90802 (562) 590-5048	**San Bernardino** 464 W. Fourth Street, Room 348 San Bernardino, CA 92401 (909) 383-4334	**Santa Rosa** 50 "D" Street, Suite 360 Santa Rosa, CA 95404 (707) 576-2362
Los Angeles 320 W. Fourth Street, Suite 450 Los Angeles, CA 90013 (213) 620-6330	**San Diego** 7575 Metropolitan Dr., Rm. 210 San Diego, CA 92108 (619) 220-5451	**Stockton** 31 E. Channel Street, Room 317 Stockton, CA 95202 (209) 948-7770
Oakland 1515 Clay Street, Suite 801 Oakland, CA 94612 (510) 622-3273	**San Francisco** 455 Golden Gate Ave., 8th Floor San Francisco, CA 94102 (415) 703-5300	**Van Nuys** 6150 Van Nuys Blvd., Room 206 Van Nuys, CA 91401 (818) 901-5315

San Francisco--Headquarters
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102
(415) 703-4810

Source: http://www.dir.ca.gov/dlse/DistrictOffices.htm
Note: Locations and telephone numbers are subject to change.

Appendix D


California Department of Fish and Game
STATE HEADQUARTERS
Resources Building
1416 Ninth Street, 12th Floor
Sacramento, CA 95814
(916) 653-7664
REGIONAL HEADQUARTERS
1 North California - North Coast Region
601 Locust Street
Redding, CA 96001
(530) 225-2300
2 Sacramento Valley - Central Sierra Region
1701 Nimbus Road
Rancho Cordova, CA 95670
(916) 358-2930
3 Central Coast Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
Mailing Address:
P.O. Box 47
Yountville, CA 94599
4 San Joaquin Valley - Southern Sierra Region
1234 East Shaw Avenue
Fresno, CA 93710
(559) 243-4005
5 South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201
6 Eastern Sierra - Inland Deserts Region
4775 Bird Farm Road
Chino Hills, CA 91709
(909) 597-9823
7 Marine Region (along entire coast)
20 Lower Ragsdale Drive #100
Monterey, CA 93940
(831) 649-2870
Field Offices
1 Redding
2 Rancho Cordova
3 Yountville
4 Fresno
5 San Diego
6 Chino Hills
7 Monterey

Appendix E

1. Interview Questions for Exposures and Illnesses - English

a. Pesticide Handler – Employee

Record the name of the interviewer, date, time, and location. The name, address, age, gender, telephone number, and work activity of the interviewee also needs to be recorded.

1. Who is your employer? Who is your supervisor?
2. How long have you been working as a handler?
3. When you were exposed or became ill, what pesticide(s) were you handling? [For flaggers: Did you know what pesticides were applied?]
4. What type of application equipment were you using? [For flaggers: Who made the application? Describe the type of aircraft used.]
5. When did the exposure occur?
6. Where did the exposure occur?
7. How did the exposure occur? Was it dermal, inhalation or ingestion?
8. Did you come in direct contact with the pesticide? Describe what you felt, tasted, saw, and smelled during this experience.
9. [For flagger: What was your location? What was the distance between you and the applicator?]
10. What personal protective equipment (PPE) did your boss give you to wear?
11. What PPE were you wearing?
12. What did you do after you were exposed to the pesticide?
13. Did you notify anyone of the exposure? Who?
14. Did you feel sick? If yes:
    a. When did you start feeling sick?
    b. What were your symptoms?
    c. How long did you have symptoms?
15. Did you go to a doctor or hospital? If yes:
    a. Who took you to the doctor or hospital?
    b. When did you see a doctor?
    c. What treatment did you receive?
    d. Were you hospitalized? If yes, how long?
16. How many days of work did you miss?
17. Were you eating or smoking at any time while you were handling pesticides?
18. Did you feel sick before coming to work? If yes, explain.
19. What were the weather conditions at the time of exposure? Did they change during the application?
20. Was anyone else working with you? Were they exposed and did they feel sick? If yes, obtain names so they can be interviewed.
21. Who maintains the PPE. How often is it inspected or repaired?
22. Are clean coveralls provided and worn every day?
23. Did you have access to soap, water (including for emergency eye flushing), and disposable towels at the work site?
24. How often do you use the wash facilities? Did you use the wash facilities after the exposure?
25. Can you describe the pesticide training and instruction you have received?
26. Who gave you the training?
27. Was the training specific to each pesticide you handle?

28. Did you review and sign your training records?
29. How often are you supervised?
30. Do you know where emergency medical care information is posted?
31. Do you know what medical supervision means? (If applicable)
32. Do you know where your employer maintains pesticide use records and safety information (A-8, MSDS, application-specific information)?
33. Has anyone told you about applications nearby or about nearby fields under restricted entry interval? Who gave you that information?

Note: Obtain a two-week work history from the employer's records.

b. Pesticide Handler -- Employer

Record the name of the interviewer, date, time and location.

1. Identify the person, company name, address, telephone number, and type of license or certificate.
2. Who is responsible for the supervision of the employee(s)?
3. Were you notified of the employee(s)' exposure? When? By whom?
4. What did you do after you were notified?
5. How did the exposure occur?
6. Where did the exposure occur?
7. When did the exposure occur?
8. What pesticide(s) was the employee handling at the time of exposure?
9. How many days of work were lost?
10. Was the employee hospitalized? If yes, how long?
11. What personal protective equipment (PPE) was provided to the employee(s)?
12. How do you make sure that the employee(s) wears his/her PPE?
13. Describe your personal protective equipment maintenance program.
14. How do you make sure that your application equipment is in good repair and safe to operate?
15. Do you provide a clean change area for your employee(s)?
16. Are clean coveralls provided to and worn by your employee(s) daily?
17. Do you provide soap, water (including for emergency eye flushing), and disposable towels at the work site?
18. Who trained the employee(s)?
19. Describe your pesticide training program?
20. Describe your medical supervision program? (If applicable)
21. Describe your hazard communication program (including display of application-specific information).
22. Describe your emergency medical care program.
23. What procedures do you follow if an employee(s) is exposed, ill or injured?
24. What method do you use to provide information to employees about nearby applications and fields under restricted entry interval?

Notes: Reviewing training and medical records during the interview may cause distractions. Close your interview with the employer before you begin your review of the documented training and medical supervision records.

Obtain a two-week work history from the employer's records.

c. Field Worker Exposed to Pesticide (Drift or Residue)

Record the name of the interviewer, and the date, time and location of the interview. The name, address, age, gender, telephone number, and work activity of the interviewee must also be recorded.

1. Who is your employer?
2. When did your exposure occur?
3. What were your work activities the day you were exposed?
4. [Questions for employees exposed to drift from an application]
   a) Where did your exposure occur?
   b) Describe what was happening in the area around you.
   c) Did you notice an application of pesticides?
   d) When did you notice it?
   e) Describe the application equipment -- plane, helicopter, tractor, etc.
   f) How far were you from the application?
   g) When did you first experience contact with the pesticide? Describe what you smelled, saw, felt, and tasted during this experience.
   h) Were you notified that a nearby pesticide application would occur (if same operator)? Who notified you?
5. [Questions for employees exposed to residue in the field]
   a) What fields did you work in the day you were exposed?
   b) How did you get to the field(s)? (e.g., drove yourself or rode with another employee.)
   c) When did you enter the field?
   d) Where did you enter the field?
   e) Were you using any hand tools (hoe, pruners, etc.) during that activity?
   f) How long did you work in the field?
   g) Did you smell or taste anything unusual? What did it smell or taste like?
   h) Were any fields you worked in posted? Where were the signs located?
   i) Were there any signs posted in adjacent fields?
   j) Did you enter any adjacent fields, i.e. to eat lunch? If yes, did you contact the foliage?
   k) Did you eat or drink anything unusual on the day when you first had the symptoms?
   l) Did you drink water from the irrigation valves?
   m) Are you sensitive to any chemicals? If so, which ones?
6. Describe the weather conditions on that day.
7. When did you start feeling sick? Where were you located then?
8. What were your symptoms?
9. How long did you have the symptoms?
10. Have you felt these same symptoms before? When? How long were you sick during that incident?
11. Did anyone else in your household have the same symptoms?
12. What clothing and or protective equipment were you wearing?
13. Did you have access to soap, water, and disposable towels at the work site?
14. How often do you use the wash facilities? Did you use the wash facilities after the exposure?
15. Did you shower when you finished work that day?
16. Did you put on clean clothes when you finished work that day?
17. Did you tell your supervisor that you felt ill? When?
18. Did you go to the doctor or the hospital? When?
19. How did you get to the doctor or hospital?

20. Were you unable to return to work? If so, how many days did you miss?
21. Were you hospitalized? If yes, how long?
22. How many people are in your work crew?
23. Do you know if anyone else was exposed or had symptoms? If yes, obtain names so they can be interviewed. Did they see a doctor?
24. Can you describe the training you have received regarding working in fields treated with pesticides?
25. Who gave you the training? When?
26. Do you know where the property operator maintains pesticide use and safety information (A-9, MSDS, application-specific information)
27. Has anyone told you about applications nearby or about nearby fields under restricted entry interval? Who gave you that information?

Note: Obtain a two-week work history from the employer.

d. Private Citizen Exposed to Pesticide Drift

1. When did the exposure occur?
2. Where did the exposure occur?
3. Did you smell, see, taste, or feel anything unusual during or after exposure?
4. What did it smell, taste, or feel like?
5. Did you see any pesticide application taking place nearby?
6. Where did the application occur?
7. What was the distance between you and the application?
8. Describe the application equipment?
9. Describe the weather conditions on that day?
10. When did you start feeling sick?
11. What were your symptoms?
12. How long did your symptoms last?
13. Did you seek medical attention? Where? When?
14. Did you notify anyone of the problem? Who?
15. Do you know if anyone else was exposed?
16. Do you know if they sought medical attention?

e. Private Citizen Exposed to Pesticide Residue

1. When did the exposure occur?
2. Where did the exposure occur?
3. Was a pesticide application made on or near the property?
4. What pesticides were applied?
5. Who made the application?
6. When was it made?
7. Where was it made?
8. Did you smell or taste anything unusual?
9. When did you first notice the unusual smell or taste?
10. What did it smell or taste like?
11. When did you start feeling ill?
12. What were your symptoms?
13. How long did your symptoms last?
14. Did you seek medical attention? When? Where?
15. Do you know if anyone else exposed?
16. Did you notify anyone of the problem? Who?

2. Interview Questions for Exposures and Illnesses - Spanish

a. Manipulador de Pesticidas - Empleado

Anote el nombre del entrevistador, día, hora y lugar. También se debe anotar el nombre, dirección, edad, género, número de teléfono, y actividad de trabajo del entrevistado.

1. Quién es su patrón (o empleador)? Quién es su supervisor?
2. Cuánto tiempo lleva trabajando como manipulador de pesticidas?
3. En el momento de la exposición, qué pesticida(s) estaba manipulando? [Por banderilleros: usted sabía que pesticidas se estaban aplicando?]
4. Qué tipo de equipo de aplicación estaba usando?
5. Cuándo ocurrió la exposición?
6. Dónde ocurrió la exposición?
7. Cómo ocurrió la exposición? Fue a través de la piel, inhalación, o por ingestión?
8. Se puso en contacto directo con el pesticida? Describa lo que sintió, degustó, vio, y olió durante ésta experiencia?
9. [Por banderilleros: Cuál era su ubicación? Cuál era la distancia entre usted y el aplicador?]
10. Qué tipo de equipo de protección personal (PPE) le entregaron?
11. Qué tipo de equipo de protección personal estaba usando?
12. Qué hizo después de sufrir la exposición a pesticida?
13. Dio aviso a alguien de la exposición? Quién?
14. Se sintió enfermo? Y si fue así:
    a. Cuándo se empezó a sentir mal?
    b. Cuáles fueron sus síntomas?
    c. Cuánto tiempo le duraron los síntomas?
15. Fue al doctor o a un hospital? Y si fue así:
    a. Quién lo llevó al doctor o a un hospital?
    b. Cuándo vio a un doctor?
    c. Qué tratamiento recibió?
    d. Fue hospitalizado? Por cuanto tiempo?
16. Cuántos días faltó al trabajo?
17. Estaba usted comiendo o fumando mientras realizaba sus labores de trabajo?
18. Se sentía mal antes de salir a trabajar? Explique.
19. Cuál eran las condiciones del tiempo en el momento de la exposición? Cambiaron éstas durante la aplicación?
20. Había alguna otra persona trabajando con usted? Fueron expuestos al pesticida? Se sintieron mal? Si la respuesta es afirmativa obtenga nombres para entrevistarlos.
21. Quién mantiene los PPE y cada cuánto tiempo son inspeccionados?
22. Se les entrega ropa (overoles) limpia todos los días? Se pone usted ésta ropa todos los días?
23. Le proveen a usted jabón, agua (para las manos y los ojos) y toallas desechables en el lugar de trabajo?
24. Cada cuando se usa los facilidades de lavar? Los uso después de la exposición?
25. Describa el entrenamiento e instrucción de pesticida que usted ha recibido?
26. Quién le dio el entrenamiento?
27. El entrenamiento fue específico para cada pesticida que usted maneja?
28. Usted revisó y firmó sus registro de entrenamiento?
29. Con qué frecuencia lo supervisan?

30. Usted sabe dónde se pone la información de emergencia médica?
31. Usted sabe lo que significa la supervisión médica? (Si es aplicable)
32. Usted sabe donde su empleador mantiene récordes y la información de seguridad del uso de los pesticidas (A-8, MSDS, información específica sobre la aplicación) ?
33. Alguien le ha informado sobre otras aplicaciones cercas o acercas campos cercanos debajo de un intervalo de entrada restringida? Quien provea esa información?

Nota: Obtenga de los registros del empleador un historial de trabajo de dos semanas.

b. Manipulador de Pesticidas - Empleador

Anote el nombre del entrevistador, día, hora y lugar.

1. Identifique la persona, nombre de la compañía, número de teléfono, y clase de licencia o certificado.
2. Quién es el responsable de la supervisión del empleado(s)?
3. Notificó a usted sobre la exposición de los empleado(s)? Cuándo? Quién lo hizo?
4. Qué hizo usted después que le notificaron?
5. Cómo ocurrió la exposición?
6. Dónde ocurrió la exposición?
7. Cuándo ocurrió la exposición?
8. Qué pesticida(s) estaba manipulando el empleado?
9. Cuántos días se perdieron de trabajo?
10. Fue hospitalizado el empleado? Por cuánto tiempo?
11. Qué clase de equipo de protección personal (PPE) le entregaron al o los empleado(s)?
12. Cómo se asegura usted que el empleado(s) use su PPE?
13. Describa su programa de la mantenimiento del equipo de protección personal.
14. Cómo se asegura usted de que su equipo de aplicación de pesticida está en buenas condiciones y su operación no es peligrosa?
15. Le proporciona usted a sus empleado(s) un área limpia para cambiarse?
16. Se le entrega ropa (overoles) limpia al empleado diariamente? Usa el empleado esta ropa diariamente?
17. En el lugar de trabajo usted provee jabón, agua (para las manos y los ojos) y toallas desechables para sus empleados?
18. Quién entrenó al empleado(s)?
19. Describa su programa de entrenamiento de pesticidas?
20. Describa su programa de supervisión médica? (Si corresponde)
21. Describa su programa de comunicación de peligro (incluyendo exhibición de información específica sobre la aplicación).
22. Describa su programa de cuidado de emergencia médica?
23. Que procedimientos sigue usted si un empleado se expone, se enferma o se lesiona?
24. Como informan a sus empleados sobre aplicaciones cercas o campos cercas que están debajo de un intervalo de entrada restringida?

Notas: Si usted revisa los registros de entrenamiento y médicos durante la entrevista, esto puede causar distracciones. Cierre su entrevista con el empleador antes de comenzar su revisión de los registros de entrenamiento y de supervisión médica documentados.

Obtenga de los registros del empleador un historial de trabajo de dos semanas.

c. Trabajador del Campo Expuesto a Deriva o Residuo de Pesticida

Anote el nombre del entrevistador, día, hora y lugar de la entrevista. También se debe anotar el nombre, dirección, edad, género, número de teléfono, y actividad de trabajo del entrevistado.

1. Quién es su patrón?
2. Cuándo ocurrió la exposición?
3. Cuáles eran sus labores de trabajo el día que sufrió la exposición o cuándo se enfermó?
4. [Preguntas para empleados expuestos a deriva de una aplicación.]
    a. Dónde ocurrió su exposición o su enfermedad?
    b. Describa lo que estaba pasando a su alrededor.
    c. Notó si había una aplicación de pesticida?
    d. Cuándo lo notó?
    e. Describa el equipo de aplicación – avión, helicóptero, tractor, etc.
    f. A qué distancia se encontraba usted de la aplicación.
    g. Cuándo experimentó por primera vez contacto con el pesticida? Describa lo que olió, vió, sintió, y degustó durante ésta experiencia.
    h. Le notificaron que ocurriría un uso de pesticidas (si el mismo operador) ?
5. [Preguntas para empleados expuestos a residuo de pesticida en el campo.]
    a. En qué campos trabajó el día que sufrió la exposición?
    b. Cómo llegó al campo(s)? (manejó usted mismo o con otro empleado.)
    c. Cuándo entró al campo?
    d. Por dónde entró al campo
    e. Usaba herramienta le la mano (azada, pruners, etc.) durante esa actividad?
    f. Cuántas horas trabajó en el campo?
    g. Olió y degustó algo diferente? Cómo olía o degustaba?
    h. Algunos de los campos dónde usted estaba trabajando tenían letreros (avisos)? Dónde estaban colocados los letreros?
    i. Habían letreros en los terrenos adyacentes?
    j. Entró en algún terreno adyacente, por ejemplo a comer? Contactó con el follaje?
    k. Comió o tomó algo fuera de lo común ese día cuándo tuvo los síntomas por primera vez?
    l. Tomó agua de las llaves de riego?
    m. Es sensible a algún producto químico? A cuáles?
6. Describa las condiciones del tiempo ese día?
7. Cuándo se empezó a sentir mal?
8. Cuáles fueron sus síntomas?
9. Cuánto tiempo le duraron los síntomas?
10. Se había sentido así antes? Cuándo? Cuánto tiempo estuvo enfermo esa vez?
11. Alguien más en su casa tuvo los mismos síntomas?
12. Que ropa o tipo de equipo de protección personal estaba usando?
13. Le proveen a usted jabón, agua y toallas desechables en el lugar de trabajo?
14. Cada cuando se usa los facilidades de lavar? Los uso después de la exposición?
15. Se duchó (lavarse el cuerpo entero con la regadera) ese día al terminar su trabajo?
16. Se vistió con ropa limpia cuándo terminó su trabajo ese día?
17. Le dijo a su supervisor que se sentía mal? Cuándo?
18. Fue al doctor o a un hospital? Cuándo?
19. Cómo llegó al doctor o a un hospital?
20. Pudo ir a trabajar? Si no, cuántos días perdió de trabajar.

21. Fue hospitalizado? Por cuanto tiempo?
22. Cuántas personas hay en su cuadrilla?
23. Había otras personas trabajando cerca de usted que fueron expuestos al pesticida? Se sintieron mal? Si la respuesta es afirmativa obtenga nombres para entrevistarlos. Vieron a un doctor o fueron a un hospital?
24. Puede usted describir el entrenamiento usted ha recibido con respecto el trabajo en los campos tratados con los pesticidas?
25. Quien le dio el entrenamiento? Cuando?
26. Usted sabe donde el operador de la propiedad mantiene récordes y la información de seguridad del uso de los pesticidas (A-9, MSDS, información específica sobre la aplicación)?
27. Alguien le ha informado sobre otras aplicaciones cercas o acercas campos cercanos debajo de un intervalo de entrada restringida? Quien provea esa información?

Nota: Obtenga del empleador un historial de trabajo de dos semanas.

d. Público Expuesto a Deriva de Pesticida

1. Cuándo ocurrió la exposición?
2. Dónde ocurrió la exposición?
3. Olió, vio, degustó o sintió algo diferente después de la exposición?
4. Qué olor, sabor, o sensación tenía?
5. Notó si había cerca una aplicación de pesticida?
6. Dónde se estaba haciendo la aplicación de pesticida?
7. A qué distancia se encontraba usted de la aplicación?
8. Describa el equipo de aplicación?
9. Describa las condiciones del tiempo ese día?
10. Cuándo se empezó a sentir enfermo?
11. Cuáles fueron sus síntomas?
12. Cuánto tiempo le duraron los síntomas?
13. Pidió atención médica? Dónde? Cuándo?
14. Notificó a alguien más de su problema? Quién?
15. Se expuso alguien más?
16. Pidieron atención médica?

e. Público Expuesto a Residuo de Pesticida

1. Cuándo ocurrió la exposición?
2. Dónde ocurrió la exposición?
3. Estaban haciendo una aplicación de pesticida en o cerca de la propiedad?
4. Qué pesticidas estaban aplicando?
5. Quién hizo la aplicación?
6. Cuándo la hicieron?
7. Dónde la hicieron?
8. Olió o degustó algo diferente?
9. Cuándo notó por primera vez un olor o sabor diferente?
10. Qué olor o sabor tenía?
11. Cuándo se empezó a sentir enfermo?
12. Cuáles fueron sus síntomas?
13. Cuánto tiempo le duraron los síntomas?
14. Pidió atención médica? Dónde? Cuándo?
15. Se expuso alguien más?
16. Notificó a alguien del problema? Quién?

Appendix F

Public Exposure Episodes Involving Large Numbers of People

DPR and CAC Responsibilities

Introduction

Pursuant to sections 2281 and 12977 of the Food and Agriculture Code, CACs have the responsibility and authority to investigate episodes that may involve potential or actual human illness or injury, property damage, loss, or contamination, and fish or wildlife kills alleged to be the result of the use or presence of a pesticide. DPR relies upon the CAC to provide sound, factual information and is available to assist the CAC during any investigation.

A non-occupational pesticide use-related exposure event (hereafter referred to as "episode") is any episode related to pesticide application activities that results in exposure to a person while they are not working. Although the CAC is responsible for responding to all such episodes, including episodes in which exposed persons do not seek medical treatment, this document is intended to provide guidance for CAC's when episodes occur involving large numbers of affected people. In recent years, these episodes have often involved off-site movement of fumigants.

Branches within DPR have different objectives in conducting investigations. While the Enforcement Branch focuses on collecting evidence that may document violations, WH&S uses episode investigation information to evaluate the circumstances of exposure, determine whether unsafe use conditions exist, and implement appropriate mitigation measures. In order to accomplish this objective, WH&S frequently needs exposure information for persons affected in episodes and a list of symptoms experienced by each person, whether or not they sought medical treatment

Advisory on emergency response

This document is not intended to supersede local emergency response planning. Significant guidance exists regarding response to episodes where emergency responders such as fire department personnel are likely to have primary responsibility. CACs should be involved in their county's emergency planning group to provide their input and keep abreast of local protocols.

CAC episode response

The CAC should develop and implement a response plan specific to each episode. The response plan should include the following five components: initial response, pre-investigation planning, investigation, mitigation and follow-up.

Initial Response

The CAC conducts Initial Response to quickly get a "thumbnail sketch" of the nature and scope of the episode and to notify appropriate agencies:

- Locate the treated field(s) that may be the source of the episode.
- Identify the pesticide(s) involved.
- Identify the grower and/or pest control business that treated the field(s).
- Considering local environmental conditions, take steps to prevent or limit additional exposures.
- Notify DPR's EBL and/or regional office when it is determined that the episode involves a pesticide. The EBL/regional office is responsible for notifying DPR headquarters as appropriate.
- Notify WH&S at (916) 445-4222 if the episode meets WH&S annual priorities for investigation.
- Decide whether response agencies should be notified, such as the lead agency per county emergency response plan, local health officer, etc.
- Conduct representative interviews to characterize the number of persons affected and the types of symptoms they are experiencing. (See page 5 of this document for general guidance on conducting gradient interviews and page 9 for the Pesticide Episode Investigation Non-Occupational Exposure Supplemental.) Initially, it is not necessary to interview every person potentially exposed. Conduct gradient interviews only until you have an understanding of approximately how many people are affected, how severely, and over how wide an area.
- Some episodes may be larger than the CAC can respond to on their own or may meet local criteria for notifying emergency responders. If so, follow your local county emergency plan and notify appropriate agencies such as County Environmental Health. The CAC can provide technical assistance to emergency responders such as information about the hazards involved. Consult with DPR staff as needed.

Pre-investigation planning

The CAC conducts pre-investigation planning to set the immediate direction and priorities for the investigation and to identify the resources and methods required to implement the strategy. The CAC generally conducts planning among their staff either in person or by phone. Pre-investigation planning may include DPR staff if appropriate. An important component is determining the information and resources exposed persons require in both the short-term and long-term (see Follow-up section). CACs should:

- Discuss what is known and who is already involved (fire, medical, media, etc.).
- Use guidance from Enforcement Branch Manuals, CAC letters, ENF/WH&S letters, current policies, etc., to plan the investigation.
- Develop the response and investigation strategy to achieve current objectives:

    - Designate CAC staff as investigation team members. Determine how often and in what form the investigation team will provide status updates to CAC headquarters.
    - Determine the type and number of samples that should be collected, if applicable, to document exposures and/or support violations.
    - Determine the records and other documentation that should be collected.
    - How will the CAC identify the exposed population, notify potentially exposed persons of the episode, and provide them with episode status updates? Options include public meetings, surveys and interviews. Suitable tools may include using door hanger questionnaires, central distribution points, or public meetings.
    - If interviews are opted for, how will they be conducted (gradient or other strategy)? Who will be interviewed? Where will interviews be conducted? Is bilingual expertise needed? Does CAC staff have appropriate questionnaire templates or do they need to develop additional survey tools? (See the enclosed Non-Occupational Pesticide Exposure Episode Questionnaire.)
    - What information do the exposed persons need to know in the immediate and longer term? Will the CAC distribute an information packet? What will it contain? DPR may have fact sheets and other similar resources.
    - Diagram the episode site and adjacent fields or properties with distances.

Pre-investigation planning (continued)

- Determine staff and material resources needed to conduct the investigation, such as:
    - Additional supplies
    - DPR headquarters, regional office, or staff from other agencies to provide technical expertise or assistance with media inquiries, sampling activities, notifying affected persons and/or conducting interviews
    - An information packet to distribute to exposed persons (letter, fact sheets, questionnaires, etc.)
    - California Department of Food and Agriculture Laboratory resources and contacts

Investigation

The CAC implements the pre-investigation plan by conducting investigation activities to determine how the episode occurred and to characterize the magnitude of the episode (geographic extent, the number of persons exposed, and the severity of their exposures). Where the initial response provided a "thumbnail sketch" of the episode's magnitude, the goal of the investigation phase is to have more exact information on who was affected and how severely:

- Mobilize the investigation team to investigate on-site.
- Conduct the investigation activities, adjusting the plan as needed to accommodate new information or developments.
- Collect samples and other information to document the episode.
- Gather information via interviews and questionnaires. Interview more intensively where people have severe symptoms, such as vomiting, and less extensively where symptoms are less severe, such as transient irritation. For example, if symptoms are severe near the episode site, interview all persons living nearby. Where symptoms are milder a few streets away, interview fewer people.
- Investigation team members should provide one another and CAC headquarters with periodic episode status updates. Considering what is known and unknown, review the overall objectives and modify the investigation plan as needed.

Mitigation

Mitigation is conducted in response to pesticide safety issues found during episode investigation and may consist of protective measures in the form of administrative, regulatory, engineering, or other controls. Depending on the nature of the episode, a mitigation measure may be imposed immediately or may be developed over a longer period of time. Protective measures may include stopping a pesticide application, requiring additional water seals or soil seals, evacuating the area, increasing buffer zones, or changing permit conditions. These may be developed by the CAC and/or DPR.

Follow-up

Follow-up is conducted to relay information to exposed persons according to their needs for both the immediate and long term. DPR can provide technical and other assistance; other assistance may be available from state and local agencies such as environmental health or state health. Exposed persons want to know what happened and what the CAC knows. A form letter, fact sheet, or other handout material can summarize this information and address their concerns. Consider the following in developing appropriate strategies:

- Provide information on what the CAC is doing or has done to follow up. If the investigation is ongoing, the CAC can report what efforts are underway, such as identifying the pesticide(s) involved, collecting samples, checking records, and conducting interviews.
- Inform residents how they can provide their input into the investigation, via meetings, surveys, interviews, etc.
- Provide information on how, when and where the CAC will communicate with them about the episode and the status of the investigation, e.g., at a public meeting, via final report, etc.
- If a public meeting is planned, explain who will be there (doctor, DPR, Spanish translators, media, etc.).
- If applicable, the CAC may need to provide information on mitigation measures that were adopted in response to the episode.

Conducting gradient interviews

This guidance on conducting gradient interviews presumes a neighborhood of single-family homes. Interview strategies will be tailored to each episode site, as these vary widely from residential to mixed use, and encompass retail sites, apartments, offices, schools, fields, etc.

Gradient interviews are a tool to characterize the magnitude of an episode. They consist of representative interviews of potentially exposed persons along a gradient beginning with the area nearest the exposure source and considering local environmental conditions such as wind direction, continuing along the presumed exposure path(s). The goal is to produce a two-dimensional diagram showing the locations affected, the approximate number of exposed persons in each area, and the distribution of exposure symptoms by severity within the episode area. Investigators should use the Non-Occupational Pesticide Exposure Episode Questionnaire (enclosed) to capture interview responses.

Gradient interviews are conducted first as part of the initial response so the CAC can rapidly characterize the episode. If symptoms are not severe, initial interviews consist of "spot sample interviews," described below. For episodes involving severe symptoms, many people, or large areas, the CAC may subsequently conduct intensive gradient interviews, such as door-to-door interviews as part of their full-scale investigation.

Begin by interviewing households immediately adjacent to the episode site. Ascertain whether residents were home at the time of the episode and ask them to describe any symptoms they experienced. If persons report severe symptoms, such as nausea and vomiting, the investigator should begin conducting house-to-house interviews. Interview residents until the reported symptoms are of a less severe nature, such as mild coughing, sore or scratchy throat, watering eyes, or headache. At this point begin "spot sample" interviewing of residents in several houses on either side of the sector where the more severe symptoms were experienced until exposed residents of homes report that they did not experience symptoms. If persons adjacent to the episode site report that symptoms were relatively minor, then the interview process can consist solely of "spot sample" interviews.

Continue interviewing outward from the episode site along the presumed exposure path(s), based on local environmental conditions. Conduct "spot interviews" or house-to-house interviews, as indicated by the severity of the symptoms reported. Once residents begin to report less severe symptoms, conduct "spot sample" interviews at every few houses until interviews indicate that exposed persons experienced no symptoms. Depending on local environmental conditions, the exposure gradient may extend in several geographic directions. The interview plan should characterize the width and depth of each geographic direction. Plot the general outline of the episode area and estimate how many persons were potentially exposed. Indicate the distribution of symptoms by severity within the episode area. This information is generally sufficient for the CAC to establish investigational objectives during their pre-investigation planning. Investigators can also use the sketch to develop a more intensive interviewing strategy.

Enclosures

Introduction

The following explains how to use the enclosed Non-Occupational Pesticide Exposure Episode Questionnaire and the Pesticide Episode Investigation Non-Occupational Exposure Supplemental. Both forms can be printed or copied onto single sheets as two-sided forms. DPR developed these forms as tools to collect and track exposure information from persons affected in episodes. If used in your investigation, return a copy to WH&S. WH&S wants your feedback on how well they work for you and any suggestions you have to facilitate capturing exposure information.

Non-Occupational Pesticide Exposure Episode Questionnaire

CAC staff may use this questionnaire to inform potentially exposed persons about an episode and to provide them an opportunity to report exposure information. The questionnaire can be used as a door hanger or made available at public meetings or central distribution points. The CAC can use the information on returned questionnaires to locate persons they may wish to interview more extensively.

Page 1 of the questionnaire was designed as a template and can be used "as is" or as guidance in developing your own page 1. Please feel free to customize page 1 as needed for each episode to accommodate your letterhead, the episode date, the pesticide involved, staff contacts, or provide more information about the episode and your investigation. The CAC may translate the entire document into other languages as needed. The table on page 2 contains fields to capture exposure information of interest to WH&S. Please do not make changes to this table, other than to translate into suitable languages.

Pesticide Episode Investigation Non-Occupational Exposure Supplemental

DPR requests that CAC staff use this report to collect information during interviews after an episode. The standardized format will allow WH&S to track episode data more effectively and WH&S hopes it provides a more efficient and user-friendly way to capture exposure information than do current formats. Fill out all applicable fields as completely as possible. Please do not modify the form. We welcome your feedback on the design, format, or other attributes and will update the form periodically to incorporate your suggestions.

Pesticide Exposure Episode Questionnaire

Dear Resident,

A pesticide incident occurred in your neighborhood on _____ at about _____AM PM. The County Agricultural Commissioner's Office is investigating the incident. If you wish to report illness symptoms that you or members of your household experienced related to this incident, please complete this questionnaire and send or drop it off at our office:

_____

_____

_____

If you have questions, call _____ at _____

If members of your household visited a doctor concerning their symptoms, please provide the doctor's name, address and phone number, with area code, below:

Doctor _____ Phone Number (_____)_____

Address _____

Pesticide Exposure Episode Questionnaire

Name	Phone number ( )
Address	Date

Describe what happened on the day of the incident. Describe the time of day, where you were, what you saw, heard, felt, tasted, and smelled.

What time did symptoms begin? _____ AM PM	Is anyone in your household still experiencing symptoms? (Circle one) YES NO

Please list the names, gender, and age of every person who experienced symptoms, including yourself. Check those symptoms experienced by each person. Use page 2 if needed. **If anyone saw a doctor, please put a "✓" next to their name in column 1.**

No.	✓	Name	Gender (M/F)	Age	Check Symptoms
1					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
2					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
3					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
4					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
5					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
6					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
7					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
8					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
9					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER
10					☐EYES BURN/TEAR ☐NOSE IRRITATED ☐COUGH ☐SORE THROAT ☐SHORT BREATH ☐RASH/ITCH ☐HEADACHE ☐DIZZY ☐ODOR ☐VOMIT/NAUSEA ☐OTHER

STATE OF CALIFORNIA

DEPARTMENT OF PESTICIDE REGULATION
ENFORCEMENT BRANCH

PESTICIDE EPISODE INVESTIGATION
NON-OCCUPATIONAL EXPOSURE SUPPLEMENT

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(AS APPLICABLE) PRIORITY NO. _____

NAME OF INTERVIEWEE	ADDRESS	CITY	ZIP CODE
TELEPHONE NUMBER WITH AREA CODE ( )	COUNTY	DATE OF EXPOSURE	TIME OCCURRED AM PM
EXPOSURE SITE ☐ HOUSE ☐ APT. ☐ SCHOOL ☐ VEHICLE: TYPE_____ ☐ RETAIL ☐ OPEN AREA ☐ OTHER _____		NUMBER EXPOSED OUTDOORS _____ NUMBER EXPOSED INDOORS _____	IS EXPOSURE ONGOING? ☐ YES ☐ NO

DID ANYONE SEE A DOCTOR? HOW MANY SAW A DOCTOR? ☐ YES ☐ NO	NAME OF DOCTOR/MEDICAL FACILITY	
ADDRESS OF DOCTOR/MEDICAL FACILITY	CITY	TELEPHONE NUMBER ( )

DATE(S) PERSONS SAW A DOCTOR	WAS ANYONE HOSPITALIZED? ☐ YES ☐ NO	IF "YES", HOW MANY PERSONS?	IF "YES", HOW LONG (DAYS)?

LOCATION OF EXPOSURE - BE SPECIFIC. USE PAGE 2 IF NEEDED. ATTACH A MAP, IF DESIRED

DESCRIBE HOW EXPOSURE OCCURRED: INCLUDE ACTIVITIES, WHAT HAPPENENED, WHAT EXPOSED PERSONS SAW, HEARD, SMELLED, TASTED AND FELT. USE PAGE 2 IF NEEDED.

NAME OF PERSONS EXPOSED (CONTINUE LIST ON PAGE 2 IF NECESSARY)	GENDER (M/F)	DATE OF BIRTH (OR AGE)	SYMPTOMS EXPERIENCED	STILL HAVE SYMPTOMS?
(SPACE 1 IS FOR PERSON BEING INTERVIEWED) 1			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
2			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
3			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
4			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
5			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
6			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
7			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
8			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO

PESTICIDE ALLEGEDLY INVOLVED	REGISTRATION NUMBER FROM LABEL	COMMODITY/SITE TREATED
PERSON/FIRM ALLEGEDLY RESPONSIBLE	OWNER OR OPERATOR OF PROPERTY TREATED	

INVESTIGATOR'S NAME (PRINT)	INVESTIGATOR'S SIGNATURE	TITLE	DATE

PESTICIDE EPISODE INVESTIGATION
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ADDITIONAL NAMES OF PERSONS EXPOSED	GENDER (M/F)	DATE OF BIRTH (OR AGE)	LIST SYMPTOMS EXPERIENCED: DRAW ARROW DOWN THROUGH ALL ENTRIES WITH IDENTICAL SMPTOMS OR WRITE "SAME AS ABOVE"	HAVE SYMPTOMS RESOLVED?
9			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
10			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
11			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
12			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
13			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
14			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO
15			☐ EYES BURN/TEAR ☐ NOSE IRRITATION ☐ COUGH ☐ DIZZY ☐ SORE THROAT ☐ SHORT BREATH ☐ RASH/ITCH ☐ ODOR ☐ HEADACHE ☐ VOMIT/NAUSEA ☐ OTHER	☐ YES ☐ NO

ADDITIONAL DESCRPTION OF HOW EXPOSURE OCCURRED

SUMMARY OF EXPOSURE EPISODE

PLOT MAP

Appendix G

Investigations on Federal Facilities

The following guidance should be followed when an investigation involves pesticide use on federal facilities. It also outlines the administrative actions that may be taken against persons who violate the State's pesticide laws when working on federal facilities. This guidance summarizes DPR's research on this issue and has been reviewed by the Legal Office. U. S. EPA, who coordinates the federal facilities program, has also reviewed this guidance and indicated they have no issue with it.

Where the term "federal facilities" is used, it includes all property under the control of the federal government and federal employees. The term "state laws" includes implementing regulations, and the terms "the State" and "states" include CACs.

1. Background:

a. Direct Regulation and Civil Penalties:

Only Congress or the President, if authorized by federal statute, can require the federal government to comply with state regulatory laws on federal facilities. However, even where the federal government is required to comply with certain state laws, states cannot levy penalties against the federal government for violation of those laws unless clearly authorized by federal statute to do so.

At present, Congress has not required the federal government to comply with state pesticide laws and has not authorized states to levy civil penalties against the federal government for violation of those laws. Apart from the exceptions listed below, the State cannot directly regulate pesticide use by federal employees on federal facilities. Nor can the State impose civil penalties against federal agencies, officials, or employees for violations of state pesticide laws on federal facilities. Constitutional law also shields private contractors from direct regulation and civil penalties when they are hired by a federal agency to operate a federal facility to satisfy a federal mandate.

Policy:

Pest control operators who work on federal facilities are not private contractors who *operate* federal facilities. Pest control businesses do not operate federal facilities; they are hired to perform some of the tasks necessary to the operation of the facility under the supervision of the facility operator. Also, to our knowledge, there are no federal mandates that specifically require the use of pesticides on federal facilities. Therefore, DPR and the CACs have authority to directly regulate private persons who conduct pest control activities on federal facilities at the request of, or under contract to, a federal agency or the operator of the federal facility. DPR and the CACs can also impose penalties on these private persons for violations of state pesticide laws.

DPR and the CACs also have regulatory and penalty authorities over private persons and the applicators they hire, who lease or use federal facilities for personal purposes rather than to fulfill a federal mandate.

b. Executive Order 12088--Federal Compliance with Pollution Control Standards:

Executive Order 12088, "Federal Compliance with Pollution Control Standards," requires federal agencies to comply with pollution control standards established pursuant to specified federal statutes, including the Federal Insecticide, Fungicide, and Rodenticide Act. It became effective in 1978 and has not been withdrawn or superceded.

This Executive Order obliges federal agencies to comply with applicable pollution control standards; to take steps necessary to prevent, control or abate environmental pollution that occurs on their facilities; and to work cooperatively with federal, state, and local agencies to resolve disputes.

The Executive Order does not provide DPR or the CACs with authority to compel federal agencies' compliance with state pesticide laws or to take civil penalty actions against a federal agency, official, or employee for violations of these laws. Instead, it allows state and local agencies to request the Administrator of U.S. EPA to resolve conflicts that arise concerning federal agency compliance with state and local pollution control standards.

Since the Executive Order does not clearly define "pollution control Standards", the courts, federal agencies, and regulatory agencies have been left to determine the applicability of environmental requirements on a case-by-case basis. In Sierra Club v. Peterson (consolidated with Coalition for Alternatives to Pesticides in Northern California v. Block), the federal appellate court found California's restricted material permit program to be a pollution control standard under this Executive Order and that the U.S. Forest Service was required to obtain a permit before using 2,4-D on property under their control located in California.

Policy:

Using this case as a guide, DPR determined that the following are pollution control standards within the context of the Executive Order:

1. The pesticide registration program;
2. The restricted material permit program;
3. The pesticide storage, transportation, and disposal program;
4. The general standards of care regarding pesticide applications listed in Title 3 CCR sections 6600, and 6602 - 6616;
5. The ground and surface water protection programs; and
6. The toxic air contaminants program.

c. Federal Agencies' Applicator Certification:

Federal law requires U.S. EPA to designate the pesticides they register as general or restricted use. Only certified applicators may handle or supervise the use of restricted use pesticides so designated by U.S. EPA. U.S. EPA approves applicator certification plans proposed by states, tribes, and federal agencies. Federal agencies may qualify federal employees under an approved Federal Agencies Plan or they may obtain applicator certification from the states where their facilities are located.

Federal regulations require states to accept federal employees qualified under approved federal plans or to describe any additional requirements in the State's Plan for Certification of commercial and Private Applicators of Restricted Use Pesticides. California's approved plan requires federal agencies to "provide assurance that their applicators are knowledgeable concerning California laws and regulations pertaining to pesticides."

Policy:

At present, DPR accepts applicator certification from agencies Approved by the U. S. EPA. Federal employees certified under their agency's approved federal plan must present a current certificate to the CAC when applying for a restricted material permit and to a licensed pesticide dealer when purchasing restricted use pesticides.

2. Federal Facility Policy Summary:

a. Federal employees performing pest control on federal facilities:

i. Regulatory Requirements:

1. Must comply with federal, state, and local pollution control standards established pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act per Executive Order 12088.
2. Must obtain applicator certification prior to the purchase and use of restricted use pesticides.
3. Must comply with requirements on the registered pesticide label.

ii. Administrative Actions and Civil Penalties:

1. DPR and CACs cannot assess civil penalties against federal agencies or their employees for violations of state or federal law.
2. DPR and CACs can refuse, revoke, or suspend any license, certificate, registration, or permit issued by DPR or the CAC for violations of state laws.
3. Executive Order 12088 provides that U.S. EPA is responsible for dispute resolution between a federal facility and a federal, state, or local regulatory agency. The CAC should inform DPR when they determine that a federal agency violated a pollution control standard and failed to cooperate in the investigation or correction of the problem.

b. Persons who are not federal employees and who are hired by or under contract to a federal agency or the facility operator to perform pest control on a federal facility; and

c. Private persons who lease or contract for the use of federal facilities for private activities; and

d. Federal employees who perform pest control on property not owned or operated by a federal agency:

i. California laws apply to the persons listed in b, c, and d.
ii. DPR and CACs can take administrative actions for violations of state laws. Administrative civil penalty action would be in lieu of criminal prosecution or civil penalties by DPR through the Attorney General. CAC's administrative action against a county-issued registration or permit and DPR administrative action against a DPR-issued license or certificate, can be in addition to any other CAC and/or DPR administrative civil penalty action, criminal prosecution, or DPR civil penalty action through the Attorney General.
iii. DPR or CACs can seek criminal prosecution.
iv. DPR can seek civil penalties through the Attorney General (in lieu of criminal prosecution).

3. **Follow-Up:**

If you observe violations on federal facilities, follow the options listed in this policy and in the Enforcement Guidelines. If you are denied access to a federal facility during an investigation or if you determine that a federal agency is unwilling to correct noted violations, please contact your EBL immediately. Depending on the nature of the issue, DPR will work with you and the federal agency to resolve the problem or will forward the information to U.S. EPA for resolution at their level.

Appendix H

Sample Letter About Withholding Specific Documents
(On County Letterhead)

(Date)

Dear (Requestor):

This is in response to your recent request for documents under the provisions of the Public Records Act, Government Code section 6252, et seq.

The documents that you have requested, (describe documents) (are enclosed/will be made available for your inspection and copying).

There are certain documents covered by your request that have been withheld under Government code section 6255, as the public interest served by not disclosing those documents outweighs the public interest served by their disclosure.

Please contact me if you have any questions.

(Commissioner signature block)

(Optional courtesy copy: county counsel)